Lower the Stakes

A Public Health Approach to Gambling in British Columbia

BRITISH COLUMBIA

Provincial Health Officer's 2009 Annual Report

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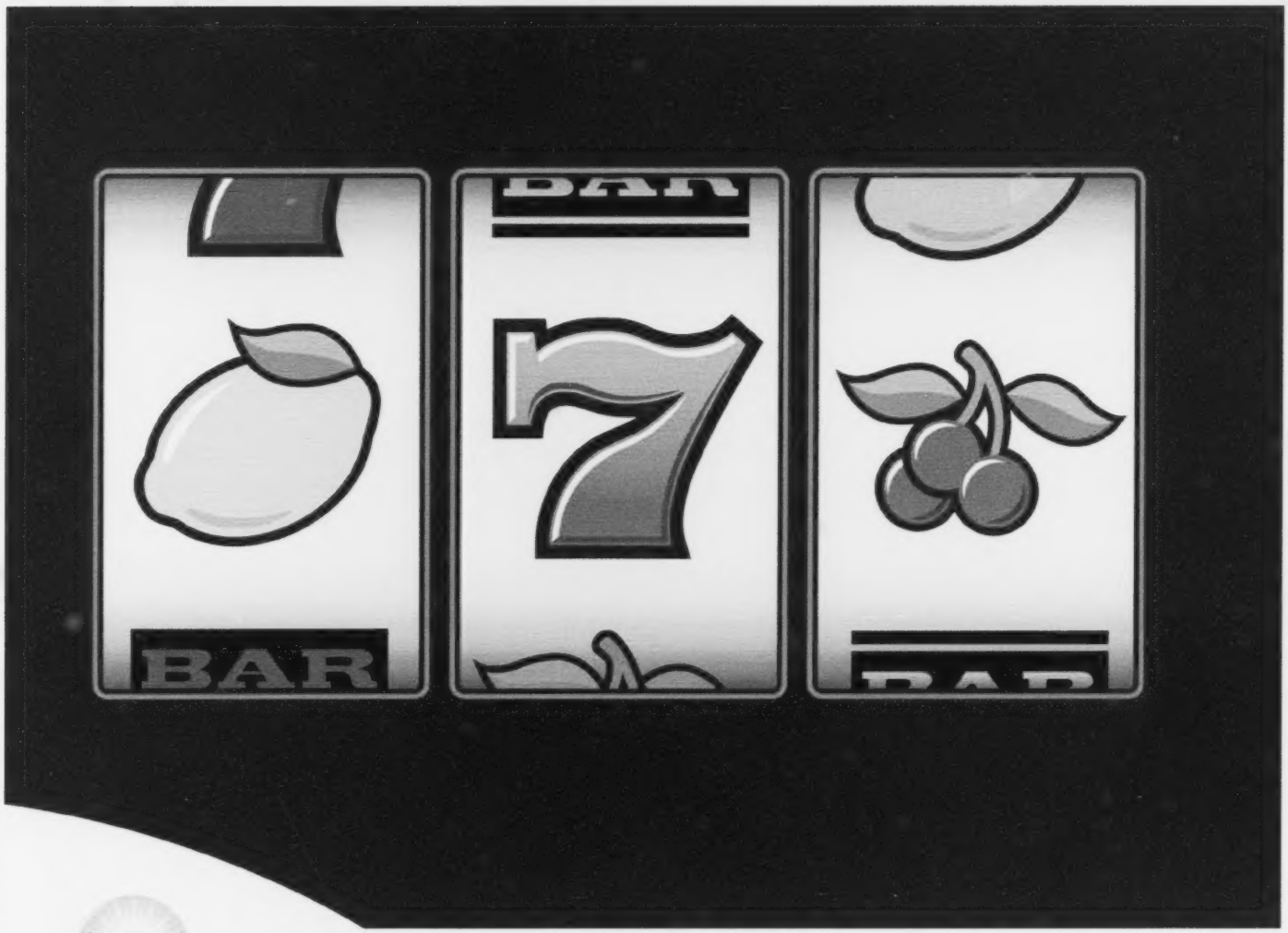


BRITISH COLUMBIA

Provincial Health Officer's 2009 Annual Report

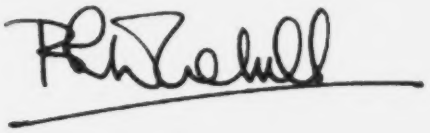
Ministry of Health
Victoria, BC

October 1, 2013

The Honourable Terry Lake
Minister of Health

Sir:

I have the honour of submitting the Provincial Health Officer's Annual Report for 2009.



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OBC, MBBS, MHSc, FRCPC
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Under Section 66 of the *Public Health Act*, the Provincial Health Officer has the authority and responsibility to monitor the health of the population of BC, and to provide independent advice on public health issues and the need for legislation, policies, and practices respecting those issues. The Provincial Health Officer is required to report annually to the Minister of Health on the health of the population of BC. Some annual reports provide a broad overview of health status, while others focus on specific topics. Other recent annual reports have focused on air quality, diabetes, food, injection drug use, Aboriginal health, and women's health.

Executive Summary

This Provincial Health Officer's annual report examines gambling in BC using a comprehensive public health approach. A public health approach considers preventive interventions, health promotion, health protection, and assessment and surveillance, and addresses issues related to quality of life for all members of the community. In applying such an approach, this report acknowledges and incorporates the health, social, and economic dimensions of gambling. It reviews the history of gambling in Canada and BC, describes current gambling policies and programs in BC, and examines evidence-based strategies to minimize the negative effects of gambling while optimizing the potential benefits.

In 1985, provincial governments in Canada obtained the exclusive right to conduct and manage legalized gambling. Like other provinces, BC has used this authority to greatly expand the scope and scale of gambling over time. This has included expansion of the availability of casinos and electronic gaming machines (EGMs), and the launch and subsequent expansion of the provincial gambling website PlayNow.com. Since the economic benefits of gambling are often easier to measure and compare than negative social impacts it is understandable that a bias toward increasing the availability of gambling over time could emerge in policy decisions.

By 2003, government revenue from gaming in Canada had exceeded revenue from both alcohol and tobacco combined. In BC, net government revenue from gaming has increased substantially over time, from approximately $510 million in 2002/2003 to $889 million in 2010/2011. In 2011/2012, BC received 2.70 per cent of its total provincial revenue from gaming, which was more than the Canadian provincial average of 2.30 per cent; however, BC earned slightly less revenue per capita age 18 and up than the Canadian provincial average in the same year ($552 compared to $557).

Despite these moderate to high levels of revenue from gaming, in 2011/2012, BC distributed the smallest amount of gaming revenue to responsible gaming and problem gambling initiatives among reporting provinces—including percentage of gaming revenue (0.51 per cent compared to the average of 1.45 per cent)—and the smallest amount per capita age 18 and up ($1.50 compared to the average of $3.59). While total revenue from gaming has increased in BC, overall gambling participation in BC has decreased. This suggests that more revenue is being drawn from fewer individual gamblers.

According to the 2007 British Columbia Problem Gambling Prevalence Study, the majority of British Columbians have participated in gambling, and most gambled for the first time by the age of 20. While most people reported that they gamble for fun or to socialize, many also reported that they participate for monetary gain. Males and adults age 55 and up were more likely to gamble frequently. Lottery games and slot machines were the most popular gambling activities reported.

Although the majority of gamblers engage in legalized gambling as a harmless form of entertainment, a small minority will experience severe and persistent problems related to their gambling. Among British Columbians surveyed in 2007, approximately 27 per cent were non-gamblers, 60 per cent were non-problem gamblers, and another 9 per cent were low-risk gamblers. A combined total of 4.6 per cent (representing approximately 159,000 people in BC) were moderate-risk and problem gamblers. Hospitalization discharge data for individuals with a problem gambling diagnosis show that overall, males account for 65 per cent of problem gambling cases. The age range with the highest prevalence counts for these cases varies by sex (35 to 44 years for males and 45 to 54 for females).

Currently, the estimated prevalence rate for problem gambling in the BC adult population is relatively low; however, it has been increasing and needs to be carefully monitored. Between 2002 and 2007, the percentage of problem gamblers increased 125 per cent, from 0.4 per cent of the population age 18 and up, to 0.9 per cent. This is likely related to the introduction of new and expanded gambling opportunities in BC. Recent policy changes have led to expanded access to games that evidence shows are higher risk, or more problematic; for example, the number of EGMs per 100,000 population age 18 and up increased by over 200 per cent from 2002/2003 to 2011/2012. From a public health perspective, expanding access to more problematic forms of gambling such as EGMs is counterproductive.

Hospitalization discharge data for BC indicate that hospitalized individuals with a problem gambling diagnosis suffer from a serious burden of mental health problems. Problem gambling cases are significantly more likely than non-cases to be hospitalized with conditions related to mental illness or problematic substance use, as well as other health conditions. Administrative data for 2010/2011 health care costs show that, on average, problem gamblers incur more than four times the medical-related expenses than patients who are not diagnosed with this condition (an average excess medical cost of $6,862 per problem gambler per year). Additionally, problem gambling has implications for families and communities; for example, overall, people with lower incomes spend a higher proportion of household income on gambling.

In both BC and Canada, the most common responses to mitigate gambling harms, as with other potentially harmful behaviours, have focused on individual education, corporate social responsibility, and treatment services. However, evidence shows that education campaigns and social responsibility messaging alone are not effective at reducing the harms and costs associated with harmful behaviours. Nevertheless, the BC government deserves recognition for implementing various problem gambling prevention and treatment programs (such as the Voluntary Self-Exclusion Program, the Discovery Program, and the Problem Gambling Help Line). This report presents estimated levels of effectiveness of problem gambling prevention initiatives, and identifies opportunities for adding or revising programs in BC, since some of the programs and policies in BC are not supported by evidence, while other policies that have demonstrated "moderate" or "moderately high" effectiveness are not yet used.

This report concludes with 17 recommendations related to the public health themes of preventive interventions, health promotion, health protection, and assessment and surveillance. They identify specific actions that can be taken in BC to build individual resilience and community capacity, decrease risks to the most vulnerable populations, and improve the responsiveness of the system to emerging problems, with the overall goal of balancing the known negative impacts of gambling with its potential benefits.

Chapter 1

Introduction

This Provincial Health Officer's annual report examines gambling policy in BC from a public health perspective and provides recommendations for reducing the harms associated with problem gambling. This report discusses social and economic impacts of gambling and the history of gambling policy in Canada and BC, introduces a comprehensive public health framework for understanding gambling, and explores gambling trends in Canada and BC. Exploration of these trends includes a review of indicators related to gambling, problem gambling, and revenue from gaming for Canada and BC.[a] This report then reviews best practices for preventing and treating problem gambling, and uses this information to assess responsible and problem gambling initiatives in BC. The final chapter discusses the key findings of this review and offers recommendations for policies, programs, and research in BC with the goal of reducing the harms and costs associated with gambling.

Why a Report about Gambling?

In 1985, the federal government gave provincial governments in Canada exclusive rights to conduct and manage legalized gambling in their jurisdictions. This is similar to the approach used to manage beverage alcohol sales. Provinces have used this exclusive authority to expand the availability of gambling. In fact, by 2003, government revenue from gaming had exceeded revenue from both alcohol and tobacco combined.[1] While this arrangement has its benefits, including raising government revenue and minimizing the role of organized crime in gambling, it also creates a potential conflict of interest where the needs for revenue generation and economic development may compete with responsibilities for health and safety.

Although the majority of gamblers engage in legalized gambling as a harmless form of entertainment, a small minority will experience severe and persistent problems related to their gambling, such as bankruptcy, job loss, marital breakdown, and even suicide. The costs of problem gambling fall primarily on individuals and their families. As a result, justifying public policy responses to address this issue may be more difficult than is the case with social problems where costs are predominantly public. However, the BC government states that one of its primary goals with regard to gambling is to "deliver gambling in a manner that encourages responsible gambling and informed choice."[2]

Research demonstrates that government policies can have strong influences, both positive and negative, on gambling-related harms and costs. More specifically, government policies related to the supply and accessibility of gambling impact rates of problem gambling, because when new forms of gambling are introduced, the prevalence of

"Having exclusive rights to conduct and manage legalized gambling has benefits for provinces, but also creates a potential conflict of interest where the needs for revenue generation and economic development may compete with responsibilities for health and safety."

[a] In general, this report uses the term "gambling" to refer to individual behaviours (e.g., responsible and problem gambling), and "gaming" to refer to industry (e.g., gaming venues, gaming revenue); however, these terms are often used interchangeably in the literature, and this report follows the usage of the sources cited.

both gambling and problem gambling typically increases, at least initially.[3,4,5,6] Evidence also shows that certain forms of gambling (e.g., electronic gaming machines and Internet gambling) may be more conducive to problem gambling than other forms (e.g., bingo and lottery tickets), making expansion of some forms of gambling an added risk for the population.[7]

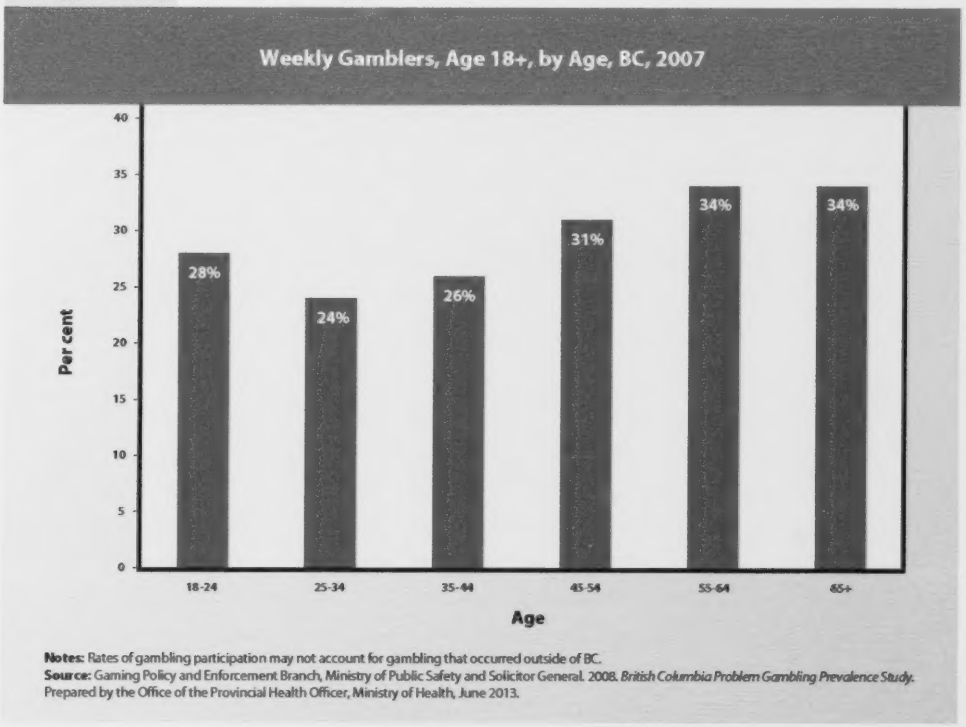
Utilizing a public health perspective enables the examination of the health, social, and economic dimensions of problem gambling, and the pursuit of strategies that balance the potential negative effects of gambling with the potential benefits. This approach will be discussed further in Chapter 3.

Profile of Gamblers in BC

According to the 2007 British Columbia Problem Gambling Prevalence Study, the majority of British Columbians (73 per cent) bet or spent money on at least one gambling activity during the preceding 12 months. Most people in BC gambled for the first time when they were relatively young, with 38 per cent of respondents reporting gambling for the first time before their 19th birthday, and another 20 per cent starting by age 20.

As shown in Figure 1.1, in 2007, British Columbians age 55–64 and 65 and up were the most likely to gamble on a weekly basis. Males gambled more frequently, with 33 per cent reporting gambling weekly compared to 26 per cent of females.[8] Among those who gambled in BC, the majority did not travel far: 67 per cent travelled 5 km or less to participate in their favourite gambling activity. Lottery games were the favourite gambling activity in BC (32 per cent), followed by slot machines (9 per cent). Most people reported that they gambled "because it's fun" (58 per cent), or to "socialize with friends or family" (53 per cent); however, many people also reported participating "to win money" (38 per cent).

Figure 1.1



Notes: Rates of gambling participation may not account for gambling that occurred outside of BC.
Source: Gaming Policy and Enforcement Branch, Ministry of Public Safety and Solicitor General. 2008. *British Columbia Problem Gambling Prevalence Study.* Prepared by the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Evaluation of public attitudes about gambling in BC showed that many British Columbians believe that legalized gambling has a bad or very bad effect on society (43 per cent combined) or think it has an equally good and bad effect (45 per cent). Only 10 per cent believe that legalized gambling has a good or very good effect on society. More than one in ten people surveyed (13 per cent) reported that gambling is a serious problem in their community, while 55 per cent indicated it is not a serious problem, 24 per cent were neutral, and 8 per cent were undecided.[8]

Understanding Problem Gambling in BC

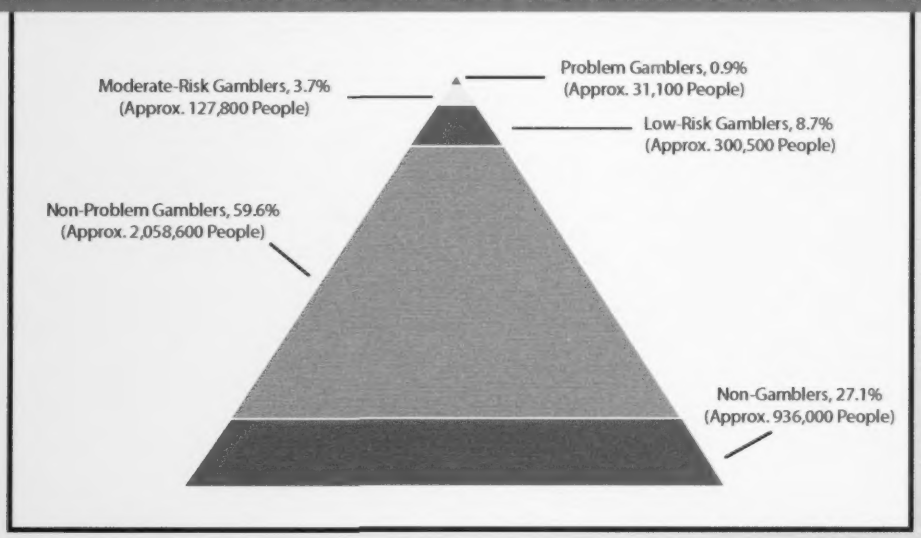
The two most frequently used terms to describe potentially harmful gambling behaviour are "problem gambling" and "pathological gambling." "Problem gambling" is the term most commonly used throughout this report, as per the Canadian Problem Gambling Index. "Moderate-risk" or "moderate problem gambling" is often included in the category of problem gambling (for more information, see sidebar *"Problem" and "Pathological" Gambling*).

Figure 1.2 shows that approximately 70 per cent of British Columbians surveyed are considered non-problem gamblers or low-risk gamblers, and just over one-quarter do not gamble at all. Those experiencing the greatest problems associated with gambling are those at the top of the triangle, representing a relatively small number of individuals (0.9 per cent for problem gamblers, 3.7 per cent for moderate-risk gamblers).

According to the BC Problem Gambling Prevalence Study, the age groups with the highest estimate of total problem gambling are 25–34 (6.8 per cent) and 18–24 (6.3 per cent), while all other age categories are under 4.5 per cent. In addition, men are more likely to be problem gamblers than

Figure 1.2

Estimated Problem Gambling Prevalence, Age 18+, BC, 2007



Note: Rates of gambling participation may not account for gambling that occurred outside of BC. Levels of problem gambling are derived from the Canadian Problem Gambling Index. Population numbers are approximate and based on BC Stats 2007 population estimates of people age 18+.
Source: Canadian Partnership for Responsible Gambling. 2010. *Canadian Gambling Digest 2008-2009*; and BC Stats. 2007. *Population Estimates: Population by Age and Sex (Total BC Population Aged 18-90+)*; cited 2013 Jun 21. Available from: http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx

women (5.5 per cent compared to 3.7 per cent). Among males, those aged 18–34 have the highest level of problem gambling at 10.5 per cent, while female levels do not differ markedly across age groups. Unemployed British Columbians have the highest rate of problem gambling, at 9.6 per cent (moderate-risk and severe problem gambling), while education and household income levels do not appear to have a relationship with problem gambling levels.[8]

The BC Problem Gambling Prevalence Study also reported that while 38 per cent of British Columbians believe there are problem gambling services available in their community, 46 per cent believe there are not, and 16 per cent do not know. However, 71 per cent of British Columbians say they would be likely to use the problem gambling services provided by the BC government if they ever experienced problems related to gambling (23 per cent said they would be unlikely to use the services).[8]

Understanding Pathological Gambling as an Addiction

Research has not yet revealed exactly what makes some individuals develop problems with gambling, while others can gamble without any issues. The American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM)[b] recently reclassified pathological gambling from an impulse control disorder to an addictive disorder, reflecting the fact that it shares characteristics with drug addiction, including the likelihood of multiple unsuccessful attempts to quit, interference with major areas of life (e.g., family, employment), and withdrawal symptoms. As with substance use,[9] gambling behaviour occurs on a spectrum.[10] For most people, gambling behaviour is not problematic, but for some, the behaviour can result in significant harms.

The differences in brain activity and neurotransmitters between non-problem gamblers and problem gamblers are still being explored. However, evidence appears to support increased levels of neurotransmitters that create arousal and lower levels of neurotransmitters related to impulse control in those with gambling control issues.[11] As discussed later in this report, problem gambling and pathological gambling are often associated with other mental health issues. Substance dependence and mental illness share a biological basis,[12] which may provide an explanation as to why problem gambling and pathological gambling are often associated with other mental health issues.

Sources of Data

Data for this report are drawn from a number of sources. The majority of data on gambling activities, government revenue, and responses to problem gambling come from the Canadian Gambling Digest. This digest is published annually by the Responsible Gambling Council for the Canadian Partnership for Responsible Gambling, and is available at www.cprg.ca/digest.cfm. BC Ministry of Health administrative datasets provided relevant health information, such as medical costs, and mental health and hospitalization data. These datasets included Discharge Abstract Database hospital data, Medical Services Plan data for physician billing, PharmaNet drug dispensing and claims records, registration and premium billing information, and Client Registry. Other significant sources included the BC Gaming Policy and Enforcement Branch (gambling and problem gambling prevalence data) and the BC Lottery Corporation (financial reports and gambling prevention information, including data from the Voluntary Self-Exclusion Program).

[b] The most recent editions of the DSM are commonly referred to as DSM-IV (2004) and DSM-5 (2013).

"Problem" and "Pathological" Gambling

The terms "problem gambling" and "pathological gambling" are often used interchangeably, but some sources distinguish between the two.[33] For example, the "problem gambling group" in the Canadian Problem Gambling Index (CPGI) "is equivalent to the DSM-IV's diagnostic criteria for pathological gambling."[10] Terms such as "compulsive," "disordered," "high-risk," and "severe problem gambling" may also be used to refer to problem and/or pathological gambling.

The CPGI is used to research problem gambling in the general population and defines **problem gambling** as "gambling behaviour that creates negative consequences for the gambler, others in his or her social network, or the community" (see sidebar *Canadian Problem Gambling Index Levels* in Chapter 4).[10]

According to the fourth edition of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), **pathological gambling** is "persistent and recurrent maladaptive gambling behaviour that disrupts personal, family or vocational pursuits," which cannot be better explained by a manic episode.[33,34] The fifth edition (DSM-5), published in 2013, changed the diagnosis from "pathological gambling" to "gambling disorder." This diagnosis, which formerly required a person to meet at least five of 10 diagnostic criteria, now requires that at least four of the following nine (revised) criteria be met within a 12-month period.[35,36]

1. Is often preoccupied with gambling (e.g., preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble).
2. Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
3. Repeated, unsuccessful efforts to control, cut back, or stop gambling.
4. Restless or irritable when attempting to cut down or stop gambling (withdrawal symptoms).
5. Gambles when feeling distressed.
6. After losing money gambling, often returns another day to get even ("chasing" one's losses).
7. Lies to family members, therapist, or others to conceal the extent of involvement with gambling.
8. Has jeopardized or lost a significant relationship, job, education, or career opportunity because of gambling.
9. Relies on others to provide money to relieve a desperate financial situation caused by gambling.[35]

Since the American Psychiatric Association first recognized "pathological gambling" as a legitimate diagnosis in 1980, at least 25 screening instruments have been developed to identify problem and pathological gambling behaviours.[36] In addition to the American Psychiatric Association diagnostic criteria provided above, instruments include the CPGI, the Gamblers Anonymous "20 questions" self-screening tool, and the South Oaks Gambling Screen.

The South Oaks Gambling Screen is a three-page questionnaire that has been widely used to evaluate pathological gambling addiction. It was developed in the United States based on the DSM.[64,65] However, because of the tool's limitations (e.g., the possibility of bias), it has become less frequently used in Canada.[66,67]

Chapter 2

Gambling in Canada and BC

Gambling in Canada has been characterized as a "national pastime," with the majority of the adult population engaging in some form of legalized gambling on at least an occasional basis.[13] Government and charity revenue from all forms of gambling in Canada are approximately $15 billion per year.[c,14] There are several major forms of gambling conducted in Canada, including

- Casino-based table gambling and electronic gaming machines (EGMs) such as slot machines.
- Non-casino EGMs, including slot machines at racetracks and community gaming centres, and video lottery terminals (VLTs) in bars and pubs.[d,15]
- Provincial, regional, and national lotteries and sweepstakes.
- Charity and community-run games (mainly bingo, raffles, and pull-tab tickets).
- Wagering on horse racing.
- Internet-based gaming of various types.

Social and Economic Impacts of Gambling

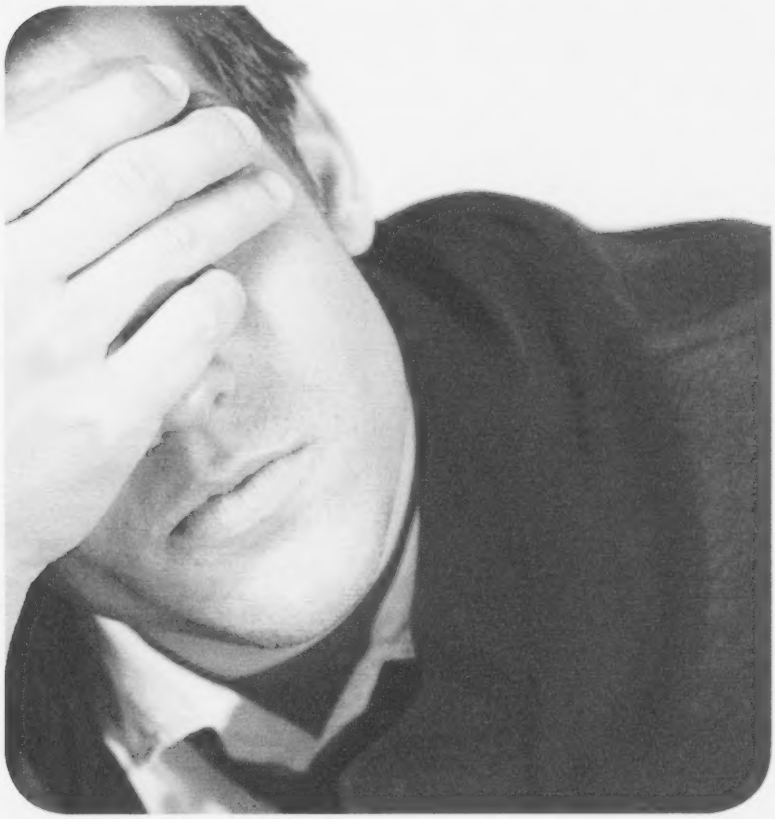
Gambling involves a host of social (non-monetary) and economic (monetary) effects, which makes traditional cost-benefit analyses difficult to apply. For this reason, Canadian researchers Williams, Rehm, and Stevens[7] argue that it is more appropriate to investigate the social and economic *impacts* of gambling, because this allows for the systematic comparison of the positive and negative aspects of both the social and economic impacts of gambling. The comprehensive impact analyses envisioned by Williams et al. are seen as an improvement over traditional cost-benefit analyses of gambling, because analyzing impacts does not require social (non-monetary) impacts to be converted into monetary terms. This type of conversion can lead to serious over- or under-estimations of value depending on the perspective and approach taken by those conducting the analysis.[7]

After conducting a comprehensive review of the published and grey literature on the potential impacts of gambling, Williams et al.[7] concluded that the most consistent economic impacts across all forms of gambling are

- Increased government revenue.
- Increased public services.
- Increased regulatory costs.
- Impacts on non-gambling businesses that are either positive (e.g., increase in business in adjacent hotels and restaurants) or negative (e.g., increase in competition for spending on entertainment).

[c] Revenue reported is after prizes have been paid but before operating expenses have been deducted.

[d] According to BC's Gaming Policy and Enforcement Branch, the only difference between slot machines and VLTs is location. The term "slot machine" refers to machines in traditional gaming facilities like casinos, while "VLT" refers to machines in other locations, such as bars and pubs. VLTs are not permitted in bars and pubs in BC.



Williams et al. use a social and economic impact framework to catalogue the usual impacts of different forms of gambling. These impacts range from large and positive (+4) to large and negative (-4). However, as shown in Table 2.1, gambling-related impacts have been assessed only as high as +3 and as low as -2, with casino gambling and EGMs usually producing both the highest government revenue and the highest social costs.

The variability in observed social and economic impacts shown in Table 2.1 is based largely on the influence of numerous contextual factors associated with gambling. These include

- The magnitude of the change in gambling availability. For example, one additional gaming facility in a large city with existing casinos would have less of an impact than the first gaming establishment in a small community.
- The length of time that gambling has been legally available in the jurisdiction prior to the introduction of additional or new forms of gambling. Many of the negative social impacts of gambling are most apparent in populations with limited prior exposure to gambling.
- The type and extent of gaming facilities in nearby communities, since new gaming opportunities will likely attract visitors from other jurisdictions if such opportunities are not available elsewhere.
- The type of game that is being introduced, as impacts vary by gaming type.
- Whether gaming revenue comes predominantly from the community or from visitors.

The most consistent social impacts across all forms of gambling are

- Increased problem gambling and associated harms (e.g., bankruptcy, divorce, suicide).
- Increased crime.[e,7]
- Increased socio-economic inequality (e.g., among people who gamble, those with lower incomes spend higher proportions of their income on gambling than those with higher incomes and therefore may have less to spend on other goods and services; this is discussed further in Chapter 3).[7]
- More negative attitudes toward gambling.

[e] Introduction of legal gambling may reduce rates of illegal gambling, but can also increase crime due to more problem gamblers in a population, which may elevate rates of property crimes committed to support problem gambling. Gambling may also create more opportunities for citizens to engage in illegal activities (e.g., passing counterfeit money, money laundering, cheating-at-play), and contribute to rates of alcohol-related offences due to increased opportunities to consume alcohol at gaming facilities. Introduction of gaming venues also increases the number of visitors to an area, which may result in more crime.

Table 2.1

Summary of the Usual Effects of Gambling, by Game Type					
Economic Impacts	Casino Gambling	EGMs	Lotteries	Internet Gambling	Horse Racing
Government Revenue	+2 to +3	+2 to +3	+2 to +3	+1	+1
Public Services	+2	+2	+2	0 to +1	0 to +1
Regulatory Costs	+1	+1	+1 to +2	+1	+1
Infrastructure Value	+1	0	0	0	+1
Infrastructure Costs	+1	0	0	0	+1
Business Starts/ Business Revenue	-1 to +2	-1	-1	0	0 to +1
Business Failures	0 to +1	+1	+1	0	0
Personal Income	0 to +2	0	0	0	0
Property Values	0 to +1	0	0	0	0
Social Impacts	Casino Gambling	EGMs	Lotteries	Internet Gambling	Horse Racing
Problem Gambling and Related Indices	+1 to +2	+1 to +2	0 to +1	+1 to +2	+1
Crime	+1 to +2	+1	-1 to 0	+1	0 to +1
Employment	0 to +2	-1 to 0	0	0	+1
Socio-Economic Inequality	+1	+1	+1	0	+1
Leisure Activity	0	0	+1	0	0
Public Attitudes	-2 to -1	-2	+1	-2 to -1	-1
Quality of Life/Public Health/ Social Capital	-1 to +1	-1 to 0	0	0	0

Note: EGMs = electronic gaming machines. Possible impacts range from -4 to +4.
Source: Williams R, Rehm J, Stevens R. 2011. The Social and Economic Impacts of Gambling (p. 64).

- The strength of policies and educational programs to address the potential negative effects of gambling.
- The socio-economic status of the community, as new revenue in areas with low socio-economic status is likely to have a larger impact on the local general economy.
- Whether the impacts are being examined at a community-specific level, or whether regional impacts are also taken into account. Community-specific impacts are much more likely to be positive, but region-wide benefits are rarer.
- Time period included in evaluation of impacts. For example, some impacts will take longer to appear than others, and therefore might not be included in a short-term evaluation.
- How gaming revenue is ultimately distributed in the community.[7]

The social and economic effects of gambling also vary according to where gaming facilities are located and, in particular, who is participating in the gaming. According to Faludi and Rutsey,[16]

> *There is great advantage to placing legal gaming in a tourist destination. The economic function of casinos becomes a more dubious proposition, however, when the primary market is the local population. In such cases, the transfer of income and assets benefits the local casino at the expense of local residents. It is one thing to redistribute income to a local economy from outside sources, and quite another to redistribute income within a local, urban economy. The former promotes business and public revenue generation which will be put to other productive uses. The latter simply redistributes and rearranges revenue and income, sometimes disproportionately, without expanding the local economic base.*

To summarize, while the social and economic effects of gambling are variable and dependent on a variety of factors, "in most jurisdictions, in most time periods, the impacts of gambling are mixed, with a range of mild positive economic impacts offset by a range of mild… negative social impacts."[17(p.66)] The monetary benefits from gambling are often easier to measure and compare than the negative social effects; thus, it is understandable that a bias toward increasing the availability of gambling over time could emerge in policy decisions.

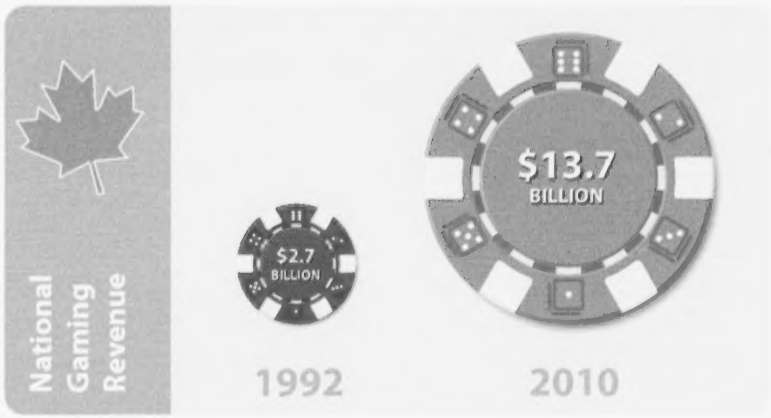
"The monetary benefits from gambling are often easier to measure and compare than the negative social effects; thus, it is understandable that a bias toward increasing the availability of gambling over time could emerge in policy decisions."

History of Gambling Policy in Canada

Canada's first *Criminal Code* outlawed all forms of gambling in 1892, during a time when the activity was largely considered a moral vice and a threat to the capitalist work ethic.[17] Canada legalized gambling for charitable purposes in 1900 with amendments to the *Criminal Code*.[18] The federal government made other minor changes to gambling policy over the next several decades, mainly to accommodate requests to expand regulated forms of small-scale gambling for charitable purposes. These included legalizing lottery schemes[f,19] in 1906, legalizing on-track horse betting in 1910, and allowing agricultural fairs to conduct games of chance at annual fairs and exhibitions in 1925.[20]

Although there were calls to expand legalized gaming (mainly lotteries) in the 1950s and 1960s, it was not until 1969 that the *Criminal Code* was amended to give federal and provincial governments the legal right to conduct large-scale lotteries and sweepstakes. The 1969 amendments can be attributed to actions by the Government of Quebec and the City of Montreal based on the need for significant non-tax revenues to pay for the deficits associated with the 1967 World's Fair and anticipated deficits from the 1976 Olympics.[18] The 1969 federal policy changes effectively transformed Canadian policy on gambling from an approach based largely on federal prohibition to an approach based on provincial operation and regulation of gambling.[18] Although there have been other significant changes to federal gambling policy since the late 1960s—including giving provinces exclusive legal control over gambling, and legalizing computer, video, and slot machine gaming devices (both in the mid-1980s)—the 1969 *Criminal Code* amendments are widely regarded as

[f] The *Criminal Code* definition of "lottery scheme" is "a game or any proposal, scheme, plan, means, device, contrivance or operation... whether or not it involves betting, pool selling or a pool system of betting." This definition specifically excludes certain games and activities, such as three-card monte, punch boards, and coin tables; bookmaking, pool selling, or making or recording bets on a race, fight, single sport event or athletic contest; computerized and video gaming and slot machines; and dice games.



one of the most important policy changes facilitating the substantial increase in gambling over the last 40 years.[21]

Besides shifting from prohibition to regulation and from federal to provincial control, the evolution of gambling in Canada has also been characterized by two other major themes.[21] First, there has been a continued escalation of new gambling products, with an emphasis on fast-paced, non-skill-based electronic games such as slot machines. Second, gambling-related policies, including decisions on the expansion of gambling types and gambling availability, have been debated by stakeholders with competing interests and perspectives, and varying levels of decision-making authority.

The continued growth of the gaming industry in Canada over the past 15 years can be attributed mostly to the expansion of casino facilities and especially EGMs (i.e., slot machines and VLTs), both inside and outside casinos.[22] Following the expansion of legalized gambling across Canada in the 1980s, government revenue from gaming has increased significantly: there has been a five-fold increase in revenue between 1992 and 2010, from $2.7 billion to $13.7 billion. Gaming revenue currently accounts for 2.3 per cent of all revenue across the provinces.[14,23]

History of Gambling Policy in BC

Gambling in BC has evolved and grown considerably since the 1969 *Criminal Code* amendments. For more information on the history provided in this section, see Appendix A - Timeline of Gambling in Canada with a Focus on BC. The evolution of gambling in BC has been determined largely by interactions between four stakeholders:

1. The provincial government, which has been both the main proponent of gambling expansion and the biggest recipient of increased revenue.

2. Municipal governments, which have at times opposed the expansion of gambling due to concerns about potential negative social and economic effects at the local level.

3. Private gambling operators, who have lobbied for the expansion of gambling over time.

4. Ad hoc and permanent coalitions of charitable organizations, many of which rely on gambling as a primary source of revenue.[9,18] Such organizations have at various times been in conflict with the provincial government over the management of gambling and the allocation of revenue.

[9] While not all charitable organizations in BC support or accept gambling as a revenue stream, a considerable number do: 90 per cent of the 818 non-profit organizations that submitted briefs to a 1992 BC government gaming review were in favour of "maintaining or enhancing charitable gambling."

More recent stakeholders include non-governmental organizations and academic researchers.

The history of gambling policy in BC can be divided into three major periods: (1) early lotteries and the expansion of charitable gambling (1970–1986); (2) provincial efforts to restructure gambling (1987–1999); and (3) creation and implementation of the provincial *Gaming Control Act* (2000–present).

Early Lotteries and the Expansion of Charity Gambling (1970–1986)

Following the 1969 changes to the *Criminal Code*, BC's first major foray into provincially operated gambling schemes occurred in 1974, when it joined with the provinces of Alberta, Manitoba, and Saskatchewan to form the Western Canada Lottery Foundation (WCLF).[h] At approximately the same time, BC passed the *Lottery Act*, which set out the regulatory framework for conducting lotteries and created the BC Lottery Branch to oversee its implementation in the province. Initially, lottery revenue was to be used for cultural and recreational purposes, but in 1976, the Act was amended to allow gaming proceeds to be used for other purposes as well. In 1985, the BC government decided to withdraw from the WCLF and formed the BC Lottery Corporation (BCLC).[20]

During this early lottery period, tickets were sold mainly by charities, which earned commissions on sales. This practice ended in the late 1970s, and the lost revenue from commission sales created long-standing animosity from the non-profit sector toward the WCLF and subsequently the BCLC.[21] From 1970 until 1984, small-scale charity casino gambling occurred on a limited basis in BC under fairly strict rules of operation. For example, charity casinos could not operate from permanent facilities and bets were limited to $2.00 or less.[20] After a time, charities began hiring commercial firms to manage their casino operations and this eventually led to growth in the number of private companies providing these services. During this period, 35 per cent of the revenue from casinos was reserved for charities, and 2 per cent of revenue went to the government as licensing fees.[20]

Over time, regulations around charity casinos were gradually relaxed and this led to significant growth in the sector.

[h] The WCLF later became known as the Western Canada Lottery Corporation.

By 1986, there were 32 private casino companies operating in BC, and the growth in the casino business had outstripped the province's ability to properly regulate the sector. At this point, new restrictive rules were introduced (e.g., reduced hours of operation, reduced bet limits, limits to the number of charity casinos), which lowered the number of commercial casino operators to 12 in 1987. At the same time, a new revenue distribution formula increased the charity share to 50 per cent and government licensing fees rose to 5 and then 10 per cent of the total revenue.[20]

In addition to lotteries and casinos, the other major types of games to expand in the 1970s and 1980s in BC were charity bingos and raffles. As was the case with charity casinos, the expansion of bingo gaming led to the emergence of commercial bingo facilities and operators such that by 1987 there were over 60 permanent bingo halls in the province, some of which could seat up to 1,000 people.[20] Overall, religious organizations and other charities were the main recipients of revenue from bingo operations during this time period.

There was tension between charity casino growth and regulation, and growing conflict over the portions of revenue the government, commercial operators, and charities took from temporary casino and bingo operations. This tension and related conflicts set the tone for future relations between these stakeholders, with disagreements erupting periodically over the management of gambling and the allocation of proceeds.

Provincial Efforts to Restructure Gambling in BC (1987–1999)

In April 1987, the BC government announced the creation of the BC Gaming Commission, whose mandate would be to regulate charity casinos, bingo, and certain ticket lotteries. The Commission was instructed to undertake a comprehensive review of gaming policy in BC and to report back to the government with recommendations. After extensive stakeholder consultations, the Commission released its report in January 1988 with the following major recommendations:

- Charity gaming in BC should be reorganized to "bring unity to the gaming structure."
- The provincial government should develop comprehensive legislation to better manage gambling, but in the interim it should create a Lotteries Advisory Committee to help better coordinate the various forms of gambling operating in the province.
- The freeze on new charity casino locations should remain, but the freeze on charities allowed to participate in casinos should be lifted.
- There should be no increase in hours of operation or betting limits (set at $5 at the time) at charity casinos.
- Slot machines should not be allowed in charity casinos.
- The development of major destination-style permanent casinos in large urban centres could bring welcome economic growth and should be studied further.[24]

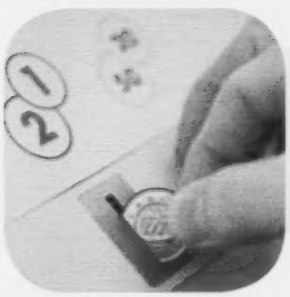
In 1992, a second major gaming review, known as the "Lord/Streifel Review," consulted stakeholders on topics such as the potential impacts on charitable gaming of expanding electronic gambling and introducing VLTs. Key findings included the following:

- The numerous groups consulted called for the creation of comprehensive legislation to govern the operation of gambling in BC.
- Concerns were raised about the ability of charitable organizations to maintain revenue, and there were related calls for mechanisms to protect charitable gaming revenue from government encroachment.

- Opposition to continued expansion of gambling was raised by several religious organizations and individuals, with the rise in problem gambling being the most prominent concern.
- The gaming industry called for further expansion, including expanded hours of operation, higher bet limits, and the introduction of new forms of gambling (e.g., VLTs and slot machines).
- The BC Gaming Commission and the BCLC indicated their support for the expansion of gaming, including the introduction of VLTs in the province.[25]

Overall, this review supported the policy of allocating the majority of current gaming revenue to charities, and affirmed the view that religious and charitable organizations should also be beneficiaries of some portion of additional revenue if and when new forms of gambling were introduced. The report also put the issue of problem gambling on the policy agenda for the first time. However, the BC government initially resisted calls for allocating resources to deal with problem gambling, and currently allocates the smallest proportion of gaming revenue per capita to problem gambling of all reporting provinces in Canada.[18]

A third major formal review of gambling policy in BC occurred in 1994, after the province received a proposal from private interests to open a major destination-style casino in Vancouver named the Seaport Centre.[20] The review of the Seaport Centre proposal led to the release of the third major report on gambling in six years.



In 1994, an estimated 10,000 unauthorized video lottery terminals were operating in BC.

Recommendations from this report[26] included the following:

- For-profit, Las Vegas-style casinos should not be permitted in BC.
- The 1987 freeze on charity casinos should be lifted and an increase in charity casinos should be explored, including discussions with First Nations groups.
- Electronic bingo should be expanded into bingo halls to enhance charitable gaming revenue.
- 4,600 to 5,000 VLTs should be introduced into adult-only venues. The machines would be owned and operated by the BCLC as a way to combat the estimated 10,000 unauthorized and illegal ("grey") machines already operating in the province.
- The province should work with the First Nations Summit[1] to explore how Aboriginal groups could participate in the new gambling policy of controlled expansion.
- All new government gaming revenue should be dedicated to socially beneficial purposes.
- New, comprehensive gaming legislation should be introduced in the province.[26]

This report reaffirmed the importance of gambling as a funding source for charitable and religious organizations and acknowledged the growing interest in gambling from First Nations groups. However, the report failed to account for the growing resistance to expanding access to gambling (particularly EGMs) by municipal governments, which eventually used zoning restrictions and bylaws to keep VLTs from being introduced in the province.[18] As of August 2012, there were still no VLT machines operating legally in BC.

[1] The First Nations Summit is an organization composed of many Tribal Councils and First Nations in BC, and was designed to address issues related to treaties and other concerns.

A major shift in gambling policy in BC occurred in early 1997, when the province appointed the Lottery Advisory Committee to implement the province's new gambling initiatives. While the new initiatives made repeated references to the protection of non-profit interests, it was clear from the beginning that the main financial beneficiary would be the provincial government. After several months of consultation with non-profit organizations across BC, in October 1997 the government passed the Gaming Proceeds Distribution Regulation. This initiative

- Entrenched the revenue-sharing formula between the province and charities with respect to revenue from bingo and casino gambling, including electronic gambling (i.e., electronic bingo and slot machines).
- Guaranteed revenue to charities based on revenue generated in fiscal year 1995/1996 plus 5 per cent (this was to allay fears of charitable organizations that the new destination gambling ventures would shift revenue away from charities to other gaming revenue recipients).
- Prescribed a formula by which the balance of net revenue would be transferred to the provincial consolidated revenue fund, with the proceeds to charities to be distributed through the Provincial Charity Trust.
- Did not provide for the sharing of revenue from destination casinos among charitable organizations.[18]

While the Gaming Proceeds Distribution Regulation attempted to finally address the ongoing conflict between the government and charity gaming interests over revenue allocation, shortly after its release, five of six commissioners on the BC Gaming Commission resigned, claiming that their authority to regulate charity gambling and set policy had been taken over by the government's Lottery Advisory Committee.[18] A court decision handed down in January 1998 lent credence to the complaints from charity interests about government encroachment into the sector. In December 1997, the Nanaimo Community Bingo Association (NCBA), a small group of licensed charities, filed a petition in the BC Supreme Court opposing the Gaming Proceeds Distribution Regulation. The Court eventually ruled in favour of the NCBA, finding that the provincial government had no authority to appropriate shares of gaming revenue intended for charitable or religious organizations.[18]

Immediately after this decision, the government called for another review of provincial gaming policy, known at the Rhodes Review.[27] The outcome of this review was an interim gambling framework. The interim framework, which was actively opposed by several coalitions of non-profit organizations, assigned responsibility for the conduct and management of casino gambling to BCLC, with the BC Gaming Commission providing direct charity access to revenue from BCLC casino operations. The framework effectively set up a more centralized "community chest" model of revenue distribution, where government assumed responsibility for the operation of gambling (in this case bingo and casino operations) and then distributed a portion of revenue to charities through provincial foundations (see sidebar *"Community Chest" Model of Revenue Distribution*).

Some members of the non-profit sector had been opposed to this centralized model

"Community Chest" Model of Revenue Distribution

The community chest model is a form of revenue distribution in which a government-run agency collects all gaming revenue and then allocates revenue to non-profit organizations. This model allows the allocating organization more control over how funds are distributed and allows the non-profit sector to regain some of the revenue that was lost when province-run gambling was expanded. Prior to the introduction of this method, charities would reserve a portion of profit from gambling facilities and pay licensing fees to the provincial government.[18]

of allocation since the mid-1980s, due to concerns that it would lead to direct government control and operation of all gambling in the province; that revenue distribution would become political, and therefore susceptible to partisan politics and organizations lobbying government for a share of the funding; and that it would eventually reduce the ability of non-profit agencies to allocate gaming revenue based on local priorities and community needs.[18] The Rhodes Review also called for the development of a White Paper to be distributed for public commentary, and for a draft Gaming Act to be developed.[27]

The White Paper, entitled *Report on Gaming Legislation and Regulation in British Columbia*, was released in 1999.[28] It summarized the range of issues that had become impediments to the provincial government's intended program of gambling expansion and offered a series of recommendations for public comment. The principal recommendations included the following:

- BCLC should discontinue all bingo operations and turn them back over to charities. Charities should have exclusive domain over bingo gambling, which should be licensed by the BC Gaming Commission.
- Charitable bingo gambling should include electronic bingo machines.
- The proposed Gaming Act should clearly define the government's guarantee of revenue to charities, and that this revenue should include bingo revenue retained by charities plus an amount transferred directly to charities equal to one-third of government net revenue from casino gambling operations.

The BC non-profit sector was guardedly supportive of both the Rhodes Review's interim gaming framework and the related White Paper for a number of reasons, including the fact that it effectively absolved them from all casino operations while guaranteeing them access to substantial funds from the province's casino earnings. On the other hand, non-profit groups that had traditionally benefitted from bingo licensing and that operated their own bingo operations remained opposed to the community chest model, fearful that it might be embraced for the distribution of all bingo revenue.

In June 1999, the two largest organizations representing charitable bingo interests signed identical Memoranda of Agreement with the BC government, affirming that licensed charities would be the sole beneficiaries of both paper and electronic bingo revenue. More importantly, these memoranda also stated that the community chest model would not be applied to bingo operations in the province, thereby addressing the major remaining opposition to the government's plans to restructure BC's gaming operations.

Creation and Implementation of the Gaming Control Act *(2000–present)*

In July 2000, the *Gaming Control Act* was introduced, incorporating recommendations from the Rhodes Review and White Paper and proposing the creation of a new Gaming Control Authority as an independent agency to oversee major gaming policy decisions. Assurances were again given to the charitable gaming sector and also to municipalities that their interests would be represented in future decisions about gambling. The Act was eventually implemented in 2002. Key provisions of the *Gaming Control Act* included a funding guarantee to charities and a lucrative revenue-sharing arrangement with host municipalities. These provisions effectively addressed the major impediments to the government's plans for the expansion of gambling operations in BC and opened the door to a new era where open conflict over gambling policy largely ceased.

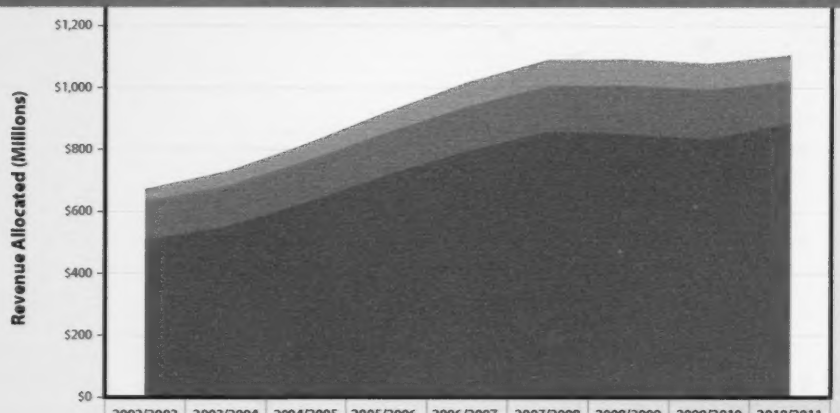
The community chest model of revenue distribution still governs gambling in BC under the authority of the *Gaming Control*

Act. The charitable sector and municipal governments appropriate the vast majority of revenue from bingo operations, while at the same time the province shares agreed-upon portions of government revenue from lotteries, casinos, EGMs, and, more recently, Internet gambling. Generally, this arrangement is beneficial to these stakeholders. BC transferred the most per capita gaming revenue to charities and local governments of all Canadian provinces in 2010/2011 ($135 million to charities and $82 million to local governments).[14] On the other hand, from 2002/2003 to 2011/2012, charity-operated gaming revenue from bingo fell from over $7 million to just over $4 million.[29,30] This may be due to factors such as increased competition (e.g., from expanded casino gambling, Internet gambling, and the introduction of slot machines at community gaming centres) and the general decline in gambling participation in BC shown in provincial prevalence survey results.[14,31]

As depicted in Figure 2.1, the amount of net government revenue from gaming allocated to the provincial government increased from approximately $510 million in 2002/2003 to $889 million in 2010/2011. This represents a change in allocation to government from 76 to 80 per cent. In the same time period, revenue from gaming distributed to charities increased from $125 million to $135 million, which represents a decrease in the proportion of total gaming revenue allocated, from 19 to 12 per cent. Allocations to local government have increased from $38 million to $82 million, representing a small increase from 6 to 7 per cent of total government revenue from gaming. While this increase is small, BC still transfers the highest amount of gaming revenue to municipal governments compared to other reporting provinces (Manitoba, Ontario, and Prince Edward Island).[j,14]

Figure 2.1

Allocation of Net Government Revenue from Gaming, BC, 2002/2003 to 2010/2011



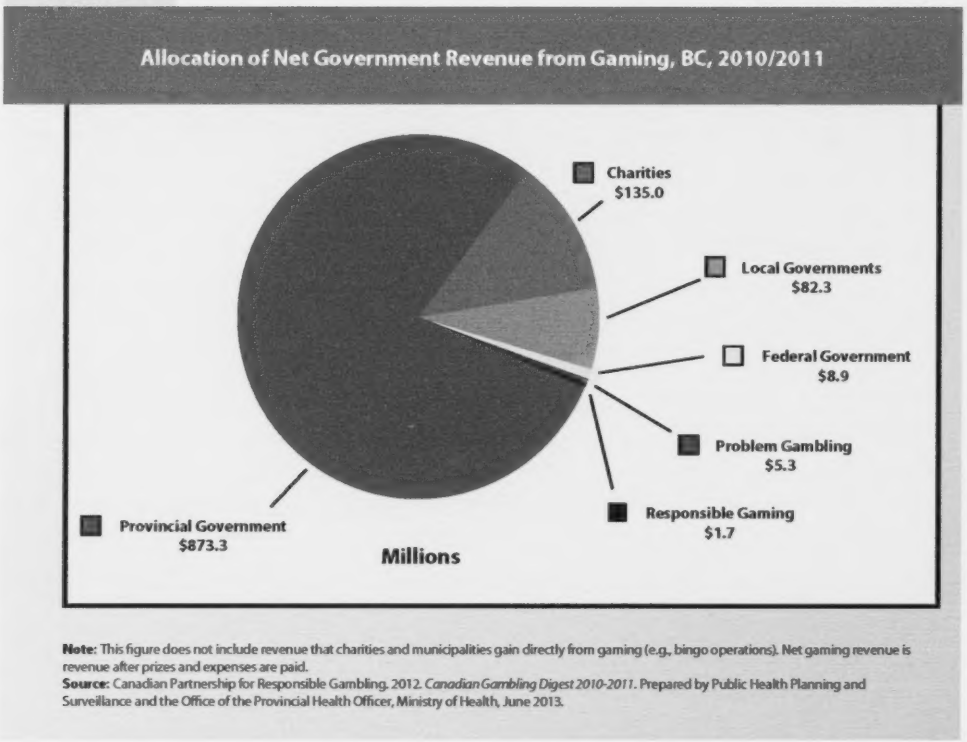
	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Local Governments	$38.22	$44.85	$53.32	$65.01	$76.11	$83.02	$83.86	$81.96	$82.32
Charities	$125.10	$131.53	$134.50	$137.12	$144.48	$147.30	$156.30	$160.10	$135.00
Provincial Government	$509.50	$553.15	$631.06	$720.56	$798.21	$860.76	$852.41	$837.02	$889.20

Year

Note: Allocation to the provincial government includes distributions to the federal government, problem gambling, and responsible gaming. This figure does not include revenue that charities and municipalities gain directly from gaming (e.g., bingo operations). Net gaming revenue is revenue after prizes and expenses are paid.

Source: Canadian Partnership for Responsible Gambling. 2004-2012. *Canadian Gambling Digest 2002-2003* to *2010-2011*. Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Figure 2.2



Note: This figure does not include revenue that charities and municipalities gain directly from gaming (e.g., bingo operations). Net gaming revenue is revenue after prizes and expenses are paid.
Source: Canadian Partnership for Responsible Gambling. 2012. *Canadian Gambling Digest 2010-2011*. Prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Figure 2.2 gives a more detailed breakdown of the allocation of total government revenue from gaming in 2010/2011. Of the $889 million received by the provincial government (see Figure 2.1), $5.3 million was distributed to problem gambling programs, $1.7 million was distributed to responsible gaming programs, and $8.9 million was transferred to the federal government.

Summary

The contentious nature of policy-making is evident when examining the major changes to gambling policy in BC during the last five decades. Gambling policy conflict in BC has centred mainly on disagreements over the allocation of revenue between charities—historically, the main beneficiaries of gaming proceeds—and the government, which has substantially increased its revenue from gaming over time. In agreeing to share set portions of gaming revenue with non-profit groups and local governments, the provincial government brokered a truce that has lasted until the present day in BC. The first three provincial policy reviews (initiated in 1987, 1992, and 1994) reaffirmed the primacy of charities as recipients of gaming revenue. However, the provincial government eventually succeeded in creating a centralized system of control to manage gambling (i.e., the community chest model). This approach has ensured that the provincial government received the largest majority of new revenue as gambling availability has expanded over time. The next chapter presents a public health perspective for understanding and evaluating impacts of gambling, and identifies public health issues related to gambling.

[1] In other provinces (e.g., Alberta), funds are transferred to municipalities from crown corporations rather than from provincial governments.

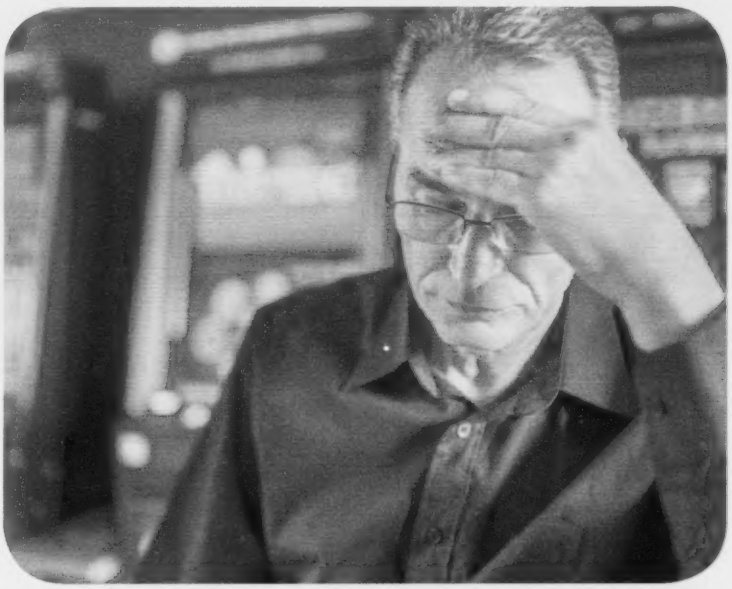
Chapter 3

A Public Health Approach to Gambling

In the past few decades, there has been a tremendous expansion in commercial gaming in BC, in Canada, and around the world. Gambling is now a global corporate industry with tremendous financial and marketing power. Governments have been active partners in this expansion due to gambling's revenue-generating potential, influence on local and regional economies, and traditional association with the charitable sector. The result is that gambling is now a significant public health issue, with substantial health, social, and financial impacts on BC communities.

As with other potentially harmful behaviours and their related health outcomes (e.g., obesity), the most common responses to mitigating gambling-related harms in both BC and Canada have focused on individual education, corporate social responsibility, and treatment services. Yet evidence shows that education campaigns and social responsibility messaging alone are not effective at reducing the harms and costs associated with harmful behaviours. Efforts to develop treatment services need to be balanced with efforts to develop public health responses, including the creation and implementation of public policies that promote health, minimize harm, and prevent problem gambling. This requires a comprehensive strategy based on sound public health principles and experience.[32]

Attempts to mitigate harms related to gambling must aim for a middle ground between prohibition and promotion. In his discussion about drug and alcohol prohibition, Marks[37] explains that potential harms associated with these substances are, paradoxically, maximized with both heavy prohibition and heavy promotion. A middle ground can be reached with "controlled availability," which reduces supply, demand, and subsequent related harms. The same logic can be applied to gambling. Canada and BC have moved away from the heavy prohibition that was seen at the beginning of the 20th century, toward the other end of the



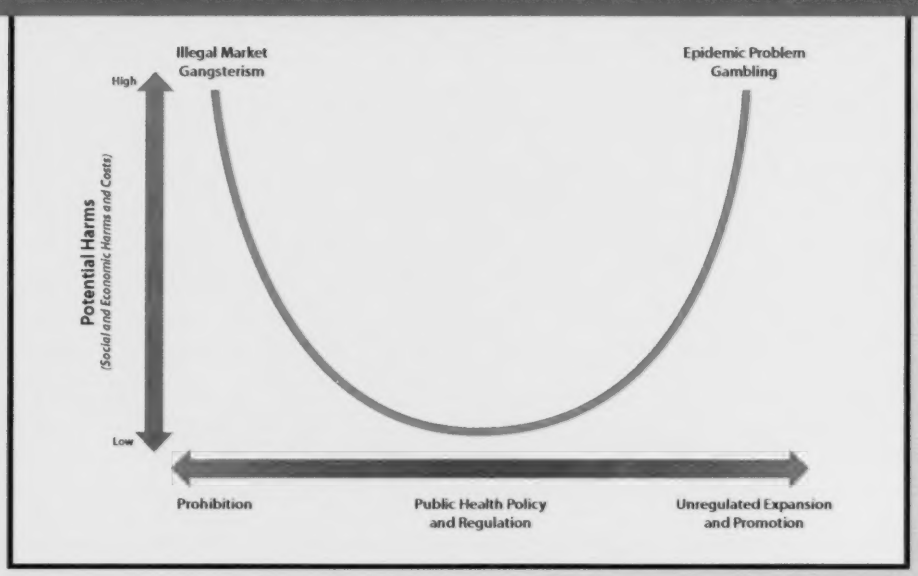
> "Understanding gambling from a public health perspective includes acknowledging the health, social, and economic dimensions of gambling, and pursuing strategies that minimize negative effects while recognizing potential benefits."

spectrum, which involves heavy, unregulated, and unconstrained promotion. Figure 3.1 provides an adapted graphic representation of this paradox of prohibition. Public health policy and regulation for responsible gambling practices is the regulatory framework for gambling that minimizes potential social and economic harms.[38]

A public health perspective acknowledges the health, social, and economic dimensions of gambling, and pursues strategies that minimize the negative effects while recognizing the potential benefits. This approach considers a range of gambling behaviours and problems at points along a health-related continuum rather than focusing solely on a specific problem such as pathological gambling. It addresses issues related to quality of life for all members of the community and gives attention to strategies that reduce any harm or adverse consequences from gambling behaviour. This approach also reflects the elements in a comprehensive public health framework, as shown in Figure 3.2, particularly preventive interventions, health promotion, health protection, and assessment and surveillance.[39]

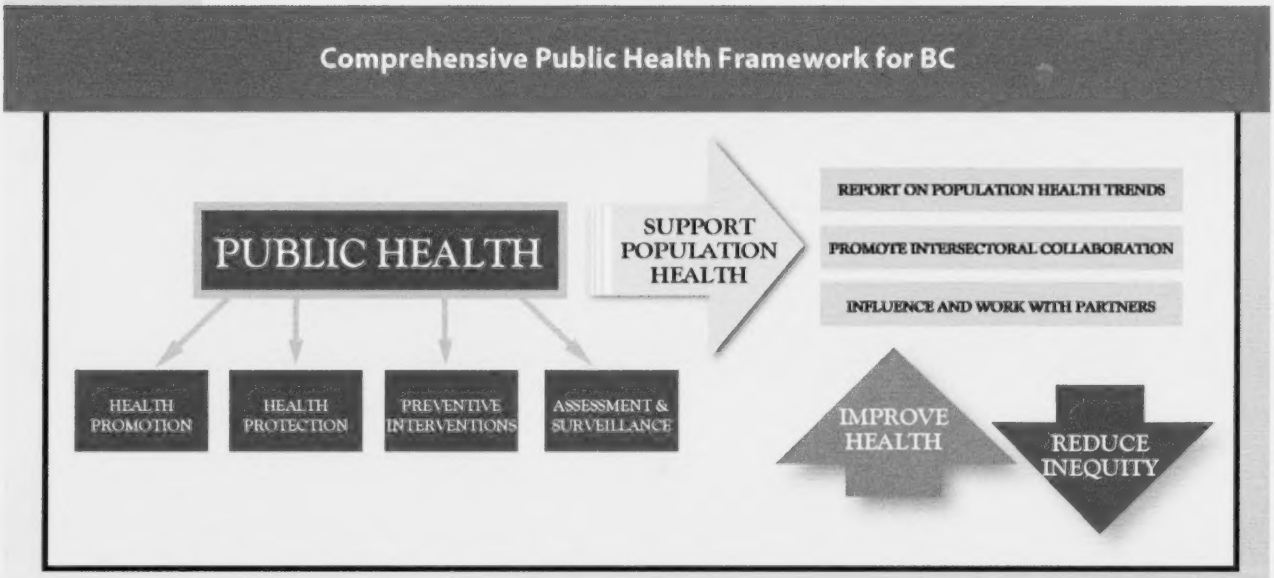
Figure 3.1

Regulatory Frameworks and Potential Gambling-Related Harms



Source: Adapted from Marks J. 1990. "The Paradox of Prohibition." In *Controlled Availability: Wisdom or Disaster?*,[37] and Health Officers' Council of BC. 2011. *Public Health Perspectives for Regulating Psychoactive Substances.*[38] Prepared by the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Figure 3.2



Source: Ministry of Health. 2013. *Promote, Protect, Prevent: Our Health Begins Here—BC's Guiding Framework for Public Health.*[37] Reproduced with permission from the BC Ministry of Health.

Preventive Interventions

Preventive interventions such as immunization, counselling, screening, and early detection are among the mainstays of public health. Despite increased awareness of the desirability of preventing problem gambling, empirical knowledge related to the subject is scarce. Virtually none of the few existing gambling prevention programs have been rigorously evaluated. Nonetheless, there is reason to conclude that prevention programs aimed at minimizing problem gambling will be most effective if conceptually driven from research on resilience during adolescence.[40] This focus on building resilience, involving problem-solving skills, social and emotional competence, autonomy, and a sense of purpose, appears to be relevant to a wide range of problem and risk-taking behaviours.[40]

Based on available evidence, problem gambling prevention initiatives should

- Be developed to meet the needs of specific groups (e.g., youth, seniors, Aboriginal peoples, ethno-cultural groups).
- Be integrated into substance use and other risky behaviour prevention programs.
- Provide effective awareness and education programs for adults (e.g., parents, teachers, other adults involved with youth) to improve knowledge about youth gambling risks and problems.
- Include self-help materials developed from harm reduction strategies. These resources should reflect responsible gambling techniques, along with guidelines for gambling abstinence, to be paired with help line interventions and referrals.
- Include outcome evaluation components.[41]

Health Promotion

The Ottawa Charter (1986) defines health promotion as

> *...the process of enabling people to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is therefore seen as a resource for everyday life, not the objective of living.*[42]

> Combining interventions to work at both the individual and population-wide levels provides the best outcomes for achieving population health goals.

Health promotion involves building capacity, knowledge, and resilience within communities, groups, and individuals by addressing the social determinants of health and creating environments in which the healthy choice is the easier choice. This may include changing the social norms that ultimately shape behaviour within the community—in this case, social norms and behaviours related to gambling. Community involvement is important for health promotion, and it has become apparent that community involvement in decision-making about gambling is critical. Working with a combination of interventions at both the individual and population-wide levels provides the best outcomes for achieving population health goals.[42]

Health Promotion Case Study: New Zealand

Following years of rapidly increasing gambling consumption, New Zealand's *Gambling Act* recognized gambling as a public health issue in 2003. New Zealand's approach focuses primarily on harm minimization, health promotion, and political determinants. Harm minimization seeks to reduce "hazardous" gambling consumption through strategies such as educating consumers and reducing access to more harmful gambling environments. Health promotion activities include empowering and developing the capacity of neighbourhoods and communities to address local issues related to gambling, as well as to influence local gambling environments. Political determinants involve increasing accountability by identifying and challenging the conflicts of interest that characterize many government relationships with gambling enterprises and gambling profits.[32]

Health Protection

Health protection involves developing and implementing strategies that protect people through legislation, regulation, inspection, and, if need be, enforcement and prosecution. Health protection recognizes that many of the determinants of health lie outside the individual's sphere of control. For example, there is growing awareness that corporate investment into sophisticated electronic technologies has increased the potential for products such as electronic gaming machines (EGMs) to attract and engage players.[43] Also, community environments and levels of social capital (e.g., access to help from family/friends, whether individuals like living in their community, etc.) have significant influence on the level of harm associated with gambling activity.[44] So, just as health protection through policy and regulation plays an important role in areas of health such as water or food safety, it also has an important role to play in gambling safety. Legislation and policies must recognize the potential for harm and seek to minimize risks to individuals or communities from gambling.

Health Protection Case Studies: Australia and Nova Scotia

Australia
The state of Victoria, Australia, addresses gambling-related harms by restricting the number of electronic gaming machines (EGMs), especially in low-income communities.[32]

Nova Scotia
Nova Scotia has "pioneered" the use of EGM loyalty cards to track gambling patterns and identify problem gambling.[32]

Assessment and Surveillance

The public health framework element of assessment and surveillance involves monitoring population health status in order to detect, assess, and respond to outbreaks of disease or other health-related issues, and to help determine the effectiveness of public health programs and services. The design and implementation of a surveillance system for gambling could encounter several challenges and issues. These may include the question of how to establish an effective and reliable data collection process capable of illustrating both short- and long-term trends, as well as how to establish a long-term commitment to collect and analyze these data.[45] Such a system is necessary if governments hope to promote policies designed to maximize the economic and social benefits of legalized gambling while minimizing the economic and social costs.

Current data systems related to gambling do not provide the data needed for a comprehensive public health approach to gambling in BC. There is a need to expand data collection and research beyond the historical focus on problem and pathological gambling to include other sources of harm that may stem from the continued expansion of legalized gambling in the province.

Major Public Health Issues Related to Gambling

Consideration of public health issues goes beyond examination of individuals and their personal health, to matters that affect groups of people who share common characteristics, geography, or interests. The growth of legalized gambling suggests a range of public health issues that should be considered in efforts to reduce potential harms from gambling.

1. Problem gambling trends and expansion of gambling

Currently, the estimated lifetime prevalence rates for problem and pathological gambling in the general adult population in both Canada and the United States are relatively low. However, a significant number of studies associated with the introduction of new gambling opportunities demonstrate an increase in problem and pathological gambling.[46] This suggests a need to carefully monitor trends in order to guide policy related to health promotion, health protection, and prevention initiatives.

2. Youth and underage gambling

Youth is a developmental stage associated with experimentation, novelty, and sensation-seeking.[47,48] Wider access to, and positive social attitudes about, gambling may contribute to the high prevalence of gambling activity observed among youth.[36,49] Research suggests that problem and pathological gambling among youth is two to three times higher than in the general adult population.[49] This is cause for concern and invites innovative approaches to prevention, promotion, and protection.

3. Impacts of gambling on socio-economic and health inequity

There is increasing understanding of how vulnerability is associated with health outcomes and health equity, and this is an important concern. Promoting health equity and reducing health disparities requires universal initiatives and strategies, but with added scale or intensity for specific population groups experiencing increased vulnerability.

Numerous studies have demonstrated links between gambling and socio-economic inequality.[7,50,51] For example, according to Reith,[50] rates of problem gambling are higher among those from "lower-income and ethnic minority groups and communities, as well as recent migrants and young males." Additionally, lower-income households spend a higher proportion of their income on gambling than do higher-income households.[7,34] Wayland[51] reports that, when considered as a percentage of household income, average spending on gambling by lower-income households in Canada is three times higher than spending by higher-income households. Freund and Morris[52] cite lotteries as among the greatest gambling-related contributors to income inequality in the United States. Mikesell[53] has noted that increases in unemployment rates in the United States correspond with increased lottery sales, suggesting that the small chance of winning the lottery becomes more appealing to people in times of recession.

Such linkages between gambling and socio-economic inequality have important implications for individual and community health and well-being. Not only are lower incomes in industrialized countries associated with lower life expectancy,[54] but gambling has been linked to additional public health issues such as stress-related physical ailments, problematic substance use, mental illness, criminal behaviours (including spousal violence, and child abuse and neglect), and suicide.[34,36]

4. Impacts of gambling on quality of life

When jurisdictions face decisions about new or expanded gaming facilities, there is often extensive, heated community debate regarding the social costs and economic benefits. One of the most common effects of gambling expansion is an increase in negative attitudes toward gambling by the public.[7] Ideally, a community gambling assessment is shaped by consideration of local community needs, community values, strategic plans, and high-quality research findings on potential community impacts. Active participation of citizens, involvement of key stakeholder groups, and transparent decision-making are characteristics of a successful community process. The outcome of this process should preserve or enhance the overall quality of community life. Ongoing monitoring and impact analysis is necessary to evaluate the decision over time and to make appropriate adjustments.

Attitudes toward Gambling

Social attitudes are an important component of any discussion about gambling as a public health issue. In their final report, *The Social and Economic Impacts of Gambling*, Williams et al.[7] note that gambling is a "value-laden activity" about which people tend to have strong opinions, whether positive or negative. Positive attitudes toward gambling are often based on the view that it has economic benefits and represents a voluntary form of taxation or government revenue collection. Negative attitudes generally focus on concerns about the social consequences of problem gambling. Their research also indicates that attitudes differ based on sex, age, and gambling involvement. Males, younger people, and heavier gamblers are more likely to report positive attitudes toward gambling than females, older adults, and casual gamblers or non-gamblers. While some people consider gambling to be "immoral," Williams et al.[7] found that it is more often seen as a matter of personal choice.

Elected officials often have more positive attitudes toward gambling because it is a source of revenue, while community members in general tend to have more negative views. As a result, "government gambling policy is often out of step with [public] opinion."[7] Williams et al.[7] also point out that "direct and/or extended exposure to gambling has tended to increase negative public attitudes," with notable exceptions such as communities or regions where the benefits of gambling are seen to outweigh the harms (such as in casinos that generate revenue for Aboriginal communities, or "destination gambling" areas like those in the state of Nevada).

Summary

The recent expansion in gambling has likely resulted in both positive and negative health, social, and financial impacts in BC. A comprehensive public health approach acknowledges the multiple dimensions of gambling and emphasizes reducing harms while realizing potential benefits. This approach includes elements that focus on prevention, health promotion, health protection, and assessment and surveillance. A public health approach tackles issues such as gambling expansion and underage gambling, and attempts to address the socio-economic and health inequalities and challenges in quality of life that gambling brings, while acknowledging differing social opinions about gambling. The next chapter presents gambling-related trends, and quantifies some of the health, social, and financial impacts of gambling in BC.

Chapter 4

Gambling-Related Trends

National Trends in Gambling Prevalence and Problem Gambling

No population-level trend data exist to assess the prevalence of gambling among Canadian citizens, including problem gambling, at the national level. The first and only national gambling prevalence survey took place in 2002 when the Canadian Problem Gambling Index (CPGI) was included in the annual Canadian Community Health Survey (CCHS). Data from the CCHS suggest that the majority (76 per cent) of Canadians age 15 and up engaged in at least one gambling activity in the previous year. The most common forms of gambling activities were lotteries (65 per cent), instant-win tickets (33 per cent), and casinos (22 per cent). This survey also confirmed that gambling is a relatively common form of recreation in Canada, with almost 40 per cent of the population gambling one or more times per week.[13]

The Problem Gambling Severity Index, part of the CPGI, assesses problem gambling based on questions about gambling involvement, problem gambling behaviour, and adverse consequences (e.g., disruption of personal, family, or professional life). It classifies individuals as non-gamblers, non-problem gamblers, low-risk gamblers, moderate-risk gamblers, and problem gamblers (see sidebar *Canadian Problem Gambling Index Levels*). Typically, the rates for moderate-risk and problem gamblers are combined and reported as the prevalence of problem gambling. Using the CPGI, the CCHS found that the national rate of problem gambling in 2002 was an estimated 2.6 per cent of the population (2.0 per cent moderate-risk and 0.6 per cent problem gamblers).[k,13] Analyses of the CCHS data indicate that the highest levels of problem gambling emerged in jurisdictions with high concentrations of electronic gaming machines (EGMs) in the community in combination with permanent casinos. This led the authors of one study to conclude that "the rapid and prolific expansion of new forms of legalized gambling in many regions of the country may be associated with considerable public health cost."[4]

[k] The confidence intervals for CPGI measures of problem gambling are fairly large, which makes it difficult to determine true problem gambling prevalence.

National Trends in Gambling Availability and Revenue

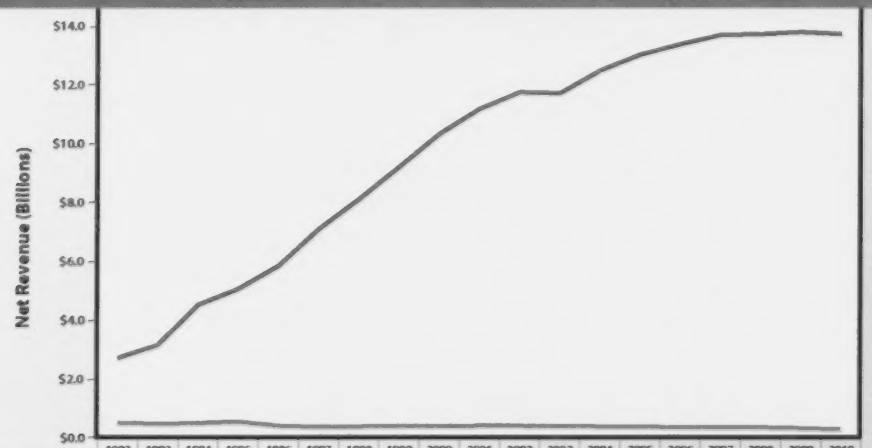
The overall trend in gambling policy is toward increasing types and numbers of games available over time.[55] For example, between 2002/2003 and 2010/2011, the total number of games of all types in Canada increased 35 per cent, from 78,512 to 106,040.[14,31] The increase in the general availability of gambling has led to large increases in government revenue from gaming, as shown in Figure 4.1. These data indicate that net revenue from government-run gambling in Canada increased five-fold over the last two decades from about $2.7 billion in 1992 to $13.7 billion in 2010. The trend shown in Figure 4.1 suggests that the sector may have reached maturity around 2007, with little or no growth in revenue since that time. This plateauing of revenue parallels experiences in other jurisdictions that have experienced rapid expansion of gambling over the last several decades.[6]

While government revenue from gaming has increased substantially over the last several decades, the proportion of revenue earned from the various types of games has changed over time. Figure 4.2 shows a breakdown of net revenue from government-run gambling. This figure shows that revenue from casinos (including casino-based EGMs) now accounts for the largest share of proceeds from gambling, having overtaken lotteries in 1999.

In 2010, revenue from casinos represented 34 per cent of all government gambling revenue, lotteries accounted for approximately 26 per cent, slot machines outside of casinos provided 21 per cent, and video lottery terminals (VLTs) accounted for 19 per cent. In Canada from 2005 to 2010, revenue from lotteries, casinos, and slot machines outside of casinos increased, while revenue from VLTs declined (Figure 4.2). The decline in VLT revenue is due mainly to a small number of jurisdictions reducing the availability of this form of gambling in recent years.[22]

Figure 4.1

Net Revenue from Government-Run Gambling and Horse Racing, Canada, 1992 to 2010

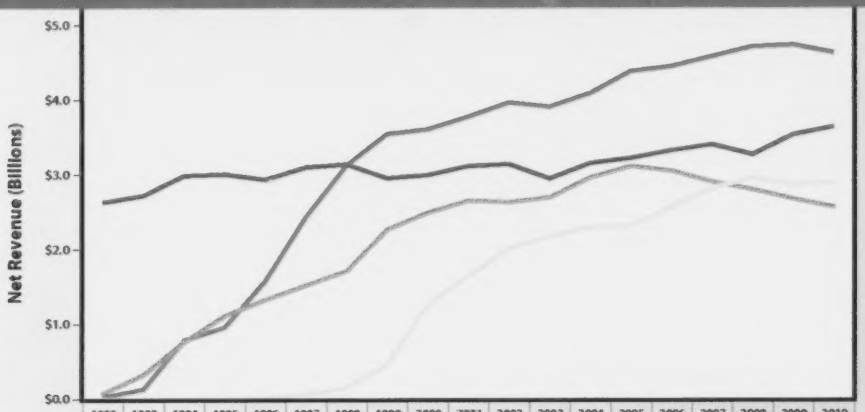


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Gambling	$2.73	$3.18	$4.54	$5.09	$5.87	$7.17	$8.14	$9.23	$10.36	$11.20	$11.77	$11.74	$12.51	$13.05	$13.40	$13.71	$13.74	$13.81	$13.74
Horse Racing	$0.53	$0.50	$0.52	$0.57	$0.44	$0.39	$0.41	$0.42	$0.42	$0.44	$0.43	$0.42	$0.42	$0.40	$0.39	$0.38	$0.38	$0.36	$0.32

Note: Gambling includes revenue from government-run casinos, lotteries, slot machines (non-casino), and video lottery terminals.
Source: Marshall, Katherine. 2011. "Chart A: Net revenue from government-run gambling has levelled off recently" (chart). *Gambling 2011*. Component of Statistics Canada Catalogue no. 75-001-X, Perspectives on Labour and Income. Ottawa, Ontario. http://www.statcan.gc.ca/pub/75-001-x/2011004/article/11551-eng.pdf (accessed June 23, 2013). Reproduced with permission.
Prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Figure 4.2

Net Revenue from Government-Run Gambling, by Type, Canada, 1992 to 2010



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Lotteries	$2.63	$2.72	$2.98	$3.01	$2.93	$3.10	$3.14	$2.95	$2.99	$3.11	$3.14	$2.95	$3.15	$3.22	$3.32	$3.40	$3.27	$3.54	$3.64
Casinos	$0.03	$0.13	$0.79	$0.96	$1.58	$2.44	$3.12	$3.54	$3.60	$3.78	$3.97	$3.91	$4.09	$4.38	$4.45	$4.58	$4.71	$4.74	$4.63
VLTs	$0.08	$0.33	$0.77	$1.12	$1.33	$1.52	$1.72	$2.27	$2.50	$2.66	$2.64	$2.70	$2.96	$3.12	$3.06	$2.91	$2.80	$2.68	$2.57
Slot Machines	$0.00	$0.00	$0.00	$0.00	$0.02	$0.06	$0.15	$0.47	$1.26	$1.65	$2.02	$2.17	$2.30	$2.32	$2.57	$2.82	$2.95	$2.87	$2.90

Year

Note: VLTs = video lottery terminals. "Slot Machines" refers to slot machines found outside of government-run casinos.
Source: Marshall, Katherine. 2011. "Chart A: Net revenue from government-run gambling has levelled off recently" (chart). *Gambling 2011*. Component of Statistics Canada Catalogue no. 75-001-X, Perspectives on Labour and Income. Ottawa, Ontario.
http://www.statcan.gc.ca/pub/75-001-x/2011004/article/11551-eng.pdf (accessed June 23, 2013). Reproduced with permission.
Prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Since an estimated 93 per cent of government revenue from casinos in Canada is derived from slot machines (after prizes and expenses are deducted),[29] approximately two-thirds of total government revenue from gambling in Canada now comes from EGMs. This is significant because, as identified earlier, the benefits and costs of gambling vary according to the type of game. A recent review of the literature on the social and economic impacts of gambling states that continuous forms of gambling (e.g., EGMs and casino table games) and forms of gambling with 24-hour access (e.g., Internet gambling) have greater potential to increase the prevalence of problem gambling.[7] Recent data from an evaluation of BC's Voluntary Self-Exclusion (VSE) Program also suggest that casino tables, EGMs, and Internet gambling are the most problematic forms of gambling. An evaluation of the VSE Program between 2006 and 2010 indicated that 83 per cent of the 169 VSE survey participants had a problem with slot machines. Additionally, 61 per cent said they had a problem with casino card games, and 33 per cent said they had a problem with Internet gambling. By comparison, 17 per cent of the VSE participants said they had a problem with horse betting, 16 per cent with Lotto, and only 6 per cent with bingo.[56] The weight of evidence suggests that EGMs are the most problematic form of gaming for a variety of reasons, including the speed of play and inducements included in the EGM experience (e.g., alerting the player of "near misses"[1]).[6]

All provincial governments in Canada earn substantial revenue from gaming, but

[1] A "near miss" on an EGM is an outcome that is close to winning (e.g., having two out of three winning symbols).

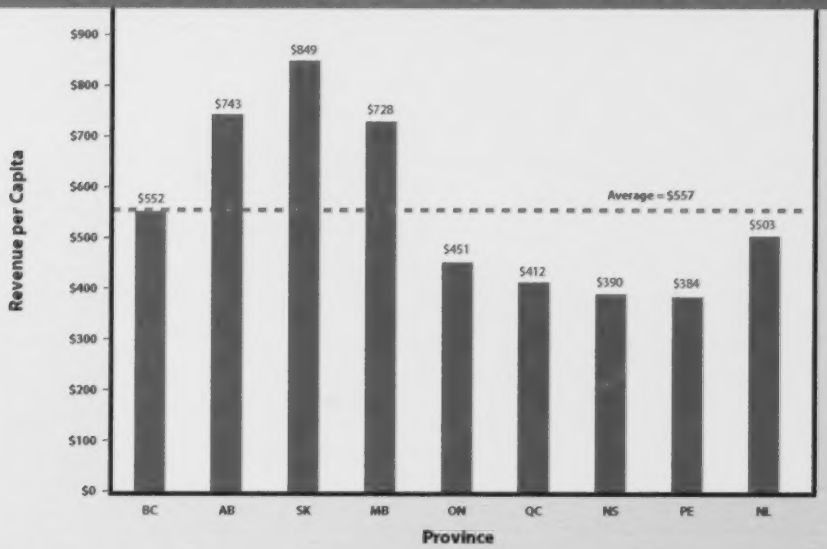
the amount per capita varies by province. Figure 4.3 shows gaming revenue per capita age 18 and up for nine provinces in 2011/2012. With gaming revenue of $552 per capita, BC is slightly below the average of $557. BC's gaming revenue per capita is substantially lower than the amounts reported by other western provinces, but higher than the amounts reported by all provinces east of Manitoba.

Figure 4.4 illustrates that despite BC's moderate to high levels of revenue from gaming, BC spends the lowest amount of its gaming revenue on problem gambling among provinces for which data were available ($1.50 per capita age 18 and up). This is less than half the average of $3.59.

Figure 4.5 compares the percentage of provincial revenue derived from gaming for nine Canadian provinces for 2011/2012, and shows a similar pattern to Figures 4.3 and 4.4. It shows that at 2.70 per cent, BC derives a greater proportion of provincial revenue from gaming than the average for all reporting provinces (2.30 per cent).

Figure 4.3

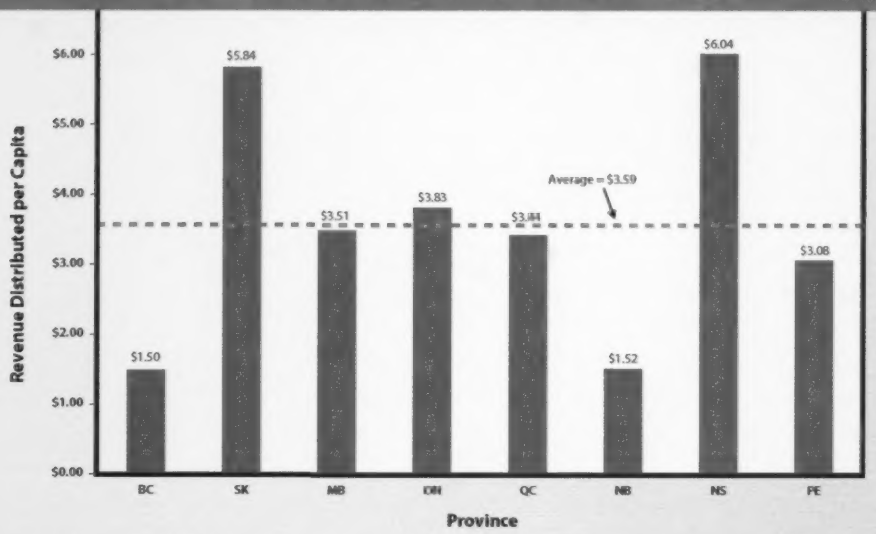
Gaming Revenue per Capita, Age 18+, by Province, Canada, 2011/2012



Note: No data were available for New Brunswick. Revenue is after prizes are paid and before expenses are deducted.
Source: Canadian Partnership for Responsible Gambling. 2013. *Canadian Gambling Digest 2011-2012*. Prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Figure 4.4

Gaming Revenue Distributed to Problem Gambling per Capita, Age 18+, by Province, Canada, 2011/2012

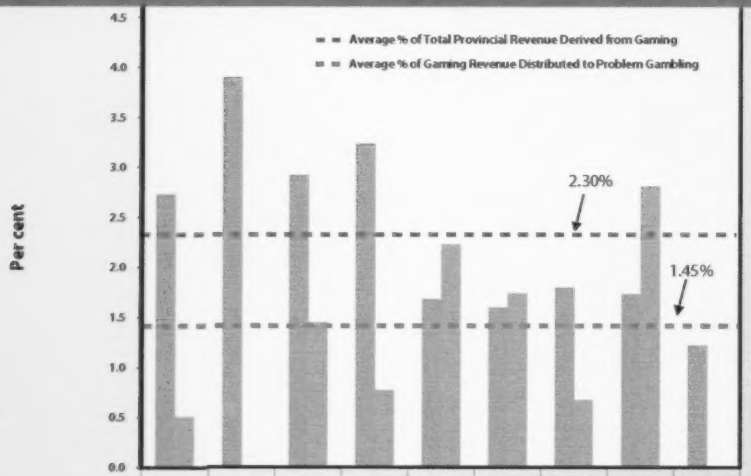


Note: No data were available for Alberta and Newfoundland and Labrador.
Source: Canadian Partnership for Responsible Gambling. 2013. *Canadian Gambling Digest 2011-2012*. Prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

"Despite BC's moderate to high levels of revenue from gaming, BC spends the lowest amount per capita of its gaming revenue on problem gambling."

Figure 4.5

Percentage of Total Provincial Revenue Derived from Gaming and Percentage of Gaming Revenue Distributed to Problem Gambling, by Province, Canada, 2011/2012



	BC	AB	SK	MB	ON	QC	NB	NS	NL
% of Total Provincial Revenue Derived from Gaming	2.70	3.86	2.91	3.23	1.67	1.58	1.78	1.73	1.24
% of Gaming Revenue Distributed to Problem Gambling	0.51	-	1.47	0.76	2.23	1.73	0.67	2.80	-

Note: No data were available for Prince Edward Island for provincial revenue derived from gaming, and no data were available for Alberta, Prince Edward Island, and Newfoundland for gaming revenue distributed to problem gambling. A "-" indicates that data were unavailable for that year.
Source: Canadian Partnership for Responsible Gambling. 2013. *Canadian Gambling Digest 2011-2012*. Prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Figure 4.5 also shows that despite the relatively large proportion of provincial revenue derived from gaming, BC distributed only 0.51 per cent of gaming revenue to problem gambling in 2011/2012—well below the average of 1.44 per cent, and the lowest percentage of all reporting provinces.

While the major forms of gaming operate in almost all provincial jurisdictions in Canada, the mix of games varies both across jurisdictions and over time, due to differences in policies related to gambling access and other factors. Table 4.1 provides information on the availability of games across Canada in 2011/2012, based on the number of games per capita age 18 and up. As shown here, BC has less than the average number of EGMs per 100,000 population age 18 and up; more than the average numbers for gaming tables at casinos and for lottery ticket terminals; and by far the highest number of electronic bingo units per 100,000 population age 18 and up, of all jurisdictions.

Table 4.1

Number of Games per 100,000 Population, Age 18+, by Province, Canada, 2011/2012

Game	Avg.	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL
EGMs	*502.6*	**317.3**	654.7	837.9	935.0	223.1	272.2	407.3	475.2	442.7	460.8
Gaming Tables at Casinos	*8.1*	**14.0**	16.5	10.6	13.3	7.3	3.4	3.9	5.5	6.9	0.0
Lottery Ticket Terminals	*133.9*	**156.9**	88.6	103.8	94.5	86.1	134.3	145.4	142.8	153.6	232.9
Electronic Bingo Units	*23.6*	**113.0**	51.8	0.0	62.3	8.5	0.0	0.0	0.0	0.0	0.0

Note: The age at which it is legal to gamble varies across provinces and gaming activities. For example, one must be 18 to gamble at casinos in Alberta, Manitoba, and Quebec, while in all other provinces the minimum age is 19. EGMs = electronic gaming machines. EGMs include slot machines and video lottery terminals.
Source: Canadian Partnership for Responsible Gambling. 2013. *Canadian Gambling Digest, 2011-2012.*

Table 4.2

Percentage of Total Government-Operated Gaming Revenue Derived from Major Gaming Types, by Province, Canada, 2010/2011

Game	Avg.	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL
EGMs	*66.2*	**55.6**	81.3	83.0	79.5	60.8	59.5	54.6	66.0	64.4	57.5
Gaming Tables at Casinos	*5.8*	**18.2**	0.0	2.7	3.8	8.9	7.6	12.4	2.9	1.5	0.0
Lottery Tickets	*27.1*	**23.0**	18.1	14.3	16.1	29.9	32.3	32.2	30.2	33.3	42.1
Bingo	*0.4*	**1.9**	0.5	0.0	0.6	0.4	0.6	0.0	0.0	0.0	0.0
Internet Gaming	*0.5*	**1.3**	0.0	0.0	0.0	0.0	0.0	0.8	0.9	0.8	0.8

Note: Revenue is after prizes are paid and before expenses are deducted. In some cases, the percentages listed are estimates based on residuals from other categories. EGMs = electronic gaming machines. EGM revenue in BC includes proceeds from electronic gaming tables at casinos. EGMs include slot machines and video lottery terminals.
Source: Canadian Partnership for Responsible Gambling. 2012. *Canadian Gambling Digest 2010-2011*. Further analysis done by the Centre for Addictions Research of BC.

Table 4.2 shows the total government-operated gaming revenue derived from major gaming types in 2010/2011. This illustrates that BC derives proportionally less revenue from EGMs than the average among provinces shown, and somewhat less from lottery tickets as well. BC derives proportionally much more revenue than the average from gaming tables at casinos, as well as slightly more than the average from bingo and Internet gaming.

Government policies influence the nature and extent of gaming. As shown in Table 4.3, policies regarding the availability and/or placement of casinos, EGMs, and Internet gaming vary by province. For example,

- Newfoundland and Labrador does not have permanent casinos.
- EGMs are concentrated in the prairie provinces (Alberta, Saskatchewan, and Manitoba), which correlates with higher-than-average government revenue from gaming in these provinces (see Tables 4.1 and 4.2).
- BC and Ontario do not have VLTs, while VLTs are placed in licensed premises in all other provinces.
- Slot machines are available in community gaming centres in BC.
- A variety of games are available on BC's *PlayNow.com* website, including casino table games (see sidebar *PlayNow.com*).

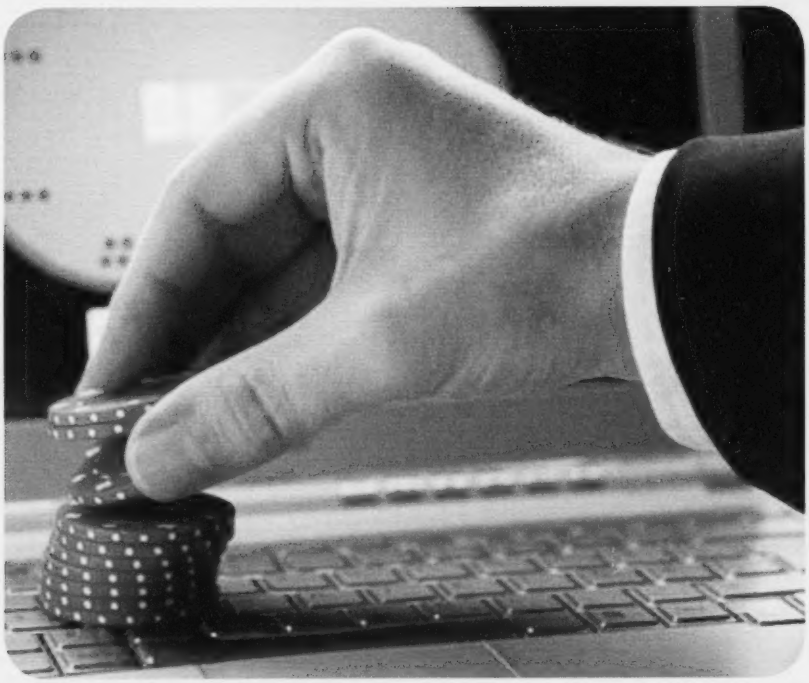
National trends examined in this section show a substantial increase over the last two decades in revenue from gambling overall, and from casinos, casino-based EGMs, and slot machines in particular. Compared to other jurisdictions in Canada, BC earns a moderate to high level of revenue from gaming, but spends less than half the average amount (per capita age 18 and up) of other jurisdictions on problem gambling. The next section looks more closely at trends in BC since 2002/2003.

Table 4.3

Availability of Casinos, Electronic Gaming Machines, and Internet Gaming, by Province, Canada, 2011/2012

Casinos	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL
Permanent Government-Run Casinos	X	X	X	X	X	X	X	X	X	
Casinos per 100,000 Population, Age 18+	0.5	0.8	1.0	0.4	0.1	0.1	0.2	0.3	1.7	0.0
EGMs	**BC**	**AB**	**SK**	**MB**	**ON**	**QC**	**NB**	**NS**	**PE**	**NL**
Slots at Community Gaming Centres	X									
Slots at Casinos	X	X	X	X	X	X	-	X	X	
VLTs in Bars, Lounges, etc.		X	X	X		X	X	X	X	X
VLTs at Racetracks				X						
EGMs per 100,000 Population, Age 18+	317.3	654.7	837.9	935.0	223.1	272.2	407.3	475.2	442.7	460.8
Internet Gaming	**BC**	**AB**	**SK**	**MB**	**ON**	**QC**	**NB**	**NS**	**PE**	**NL**
Instant Win/Scratch	X						X	X	X	X
Lottery Tickets	X						X	X	X	X
Bingo	X						X	X	X	X
Casino Slots	X					X				
Casino Table Games	X					X				
Player-Banked Poker	X					X				
Sports Betting	X						X	X	X	X
Video Poker	X									
Percentage of Revenue from Internet Gaming	1.3	0.0	0.0	0.0	0.0	0.0	0.8	0.9	0.8	0.8

Note: EGMs = electronic gaming machines. VLTs = video lottery terminals. A "-" indicates that data were unavailable. Ontario recently closed several gaming centres along its border with the United States, but is planning to open new casinos in at least five cities. For more information, visit www.modernolg.ca.
Source: Canadian Partnership for Responsible Gambling. 2013. *Canadian Gambling Digest 2011-2012.*



PlayNow.com

PlayNow.com is a BC Lottery Corporation (BCLC) website that was launched in 2004. It is promoted as "BC's own online gaming website" and the first provincially-operated gambling website in North America. *PlayNow.com* offers casino, poker, bingo, and sports and lottery games, including slot machines, blackjack, craps, roulette, and more.

PlayNow.com promises to provide a safe, secure online gaming environment for BC residents age 19 and up. According to the website, all of the revenue generated through *PlayNow.com* stays in BC to support provincial, community, and charitable programs. The website provides the toll-free number for the Problem Gambling Help Line, and encourages players to "keep it fun" by using their GameSense.[57]

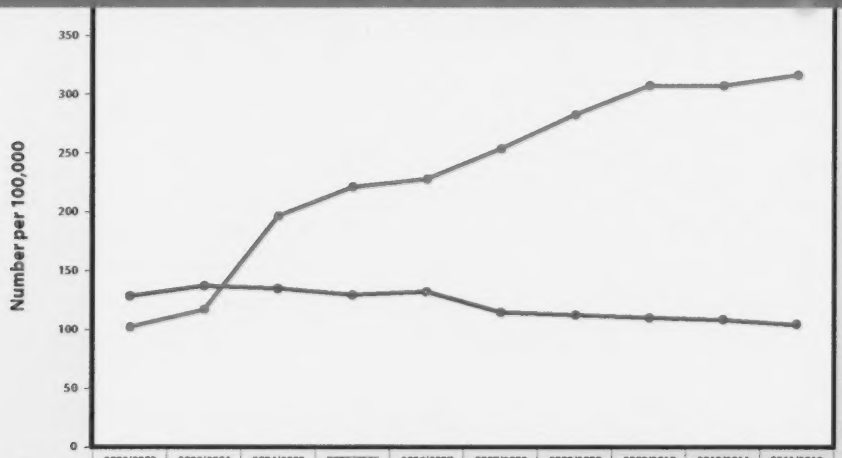
In January 2013, BCLC announced an expansion of the *PlayNow.com* website into Manitoba.[58]

Trends in the Availability of Gambling in BC

The availability of different types of gambling has shifted substantially in BC over the last decade, as shown in Figures 4.6 and 4.7. From 2002/2003 to 2011/2012, the number of EGMs per 100,000 population increased by approximately 210 per cent, and the number of casino gaming tables per 100,000 population increased by about 16 per cent. Decreases were also evident during this time: the number of lottery ticket outlets per 100,000 population decreased by almost 20 per cent, and the number of permanent casinos per 100,000 population decreased by almost 17 per cent. Meanwhile, from 2003/2004 to 2011/2012, the number of full-time bingo halls per 100,000 population decreased by 30 per cent. These changes are directly influenced by government policies on availability. For example, the large increase in EGMs in BC in 2005/2006 and again after 2007/2008 resulted at least partially from the decision to place slot machines in community gaming centres in 2005, and to expand this availability in 2007. In 2011/2012 there were 11,830 EGMs operating in BC.[79]

Figure 4.6

Lottery and Electronic Gaming Machines per 100,000 Population, Age 18+, BC, 2002/2003 to 2011/2012

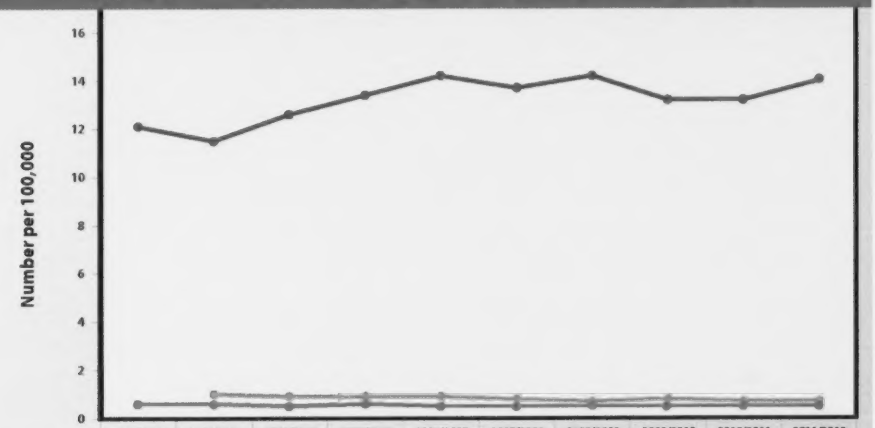


	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
Lottery Ticket Outlets	128.4	137.1	134.9	129.4	132.2	114.5	112.2	109.9	108.5	103.3
EGMs (Casino & Non-Casino)	102.2	116.8	196.6	221.1	228.0	253.8	282.9	307.5	307.3	317.3

Note: EGMs = electronic gaming machines.
Source: Canadian Partnership for Responsible Gambling. 2004-2013. *Canadian Gambling Digest 2002-2003* to *2011-2012*. Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Figure 4.7

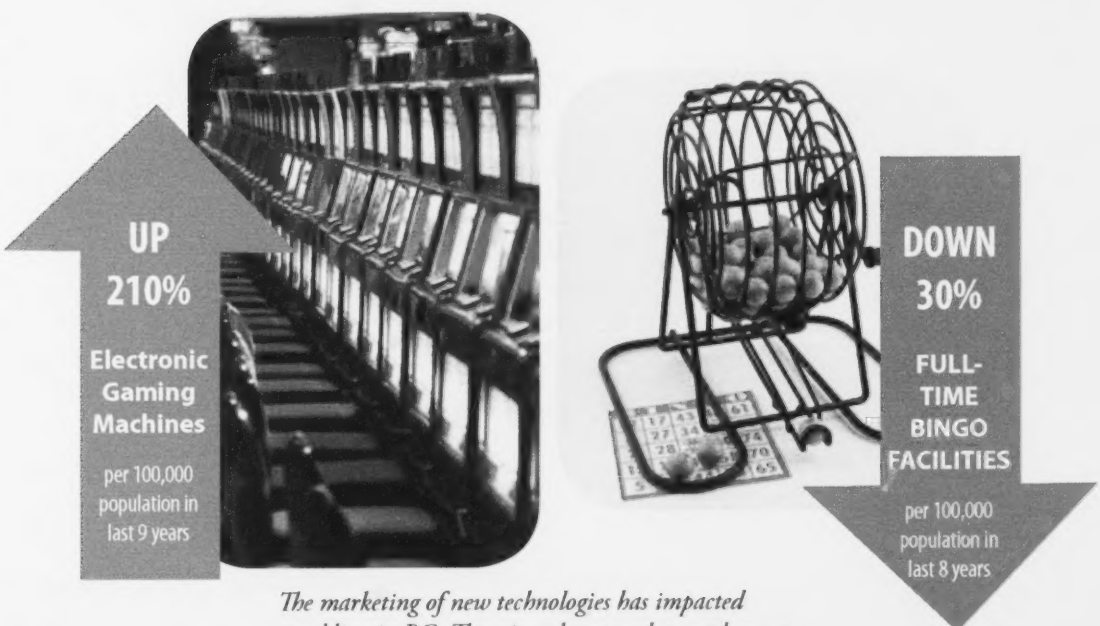
Casino and Bingo Facilities per 100,000 Population, Age 18+, BC, 2002/2003 to 2011/2012



	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
Casino Gaming Tables	12.1	11.5	12.6	13.4	14.2	13.7	14.2	13.2	13.2	14.0
Casinos (Permanent)	0.6	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Bingo Facilities (Full-Time)	-	1.0	0.9	0.9	0.9	0.8	0.7	0.8	0.7	0.7

Year

Note: A "-" indicates that data were unavailable for that year.
Source: Canadian Partnership for Responsible Gambling. 2004-2013. *Canadian Gambling Digest 2002-2003* to *2011-2012*. Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.



The marketing of new technologies has impacted gambling in BC. There is a clear trend towards more EGMs in BC, and fewer traditional bingo facilities.

Prevalence of Gambling and Problem Gambling in BC

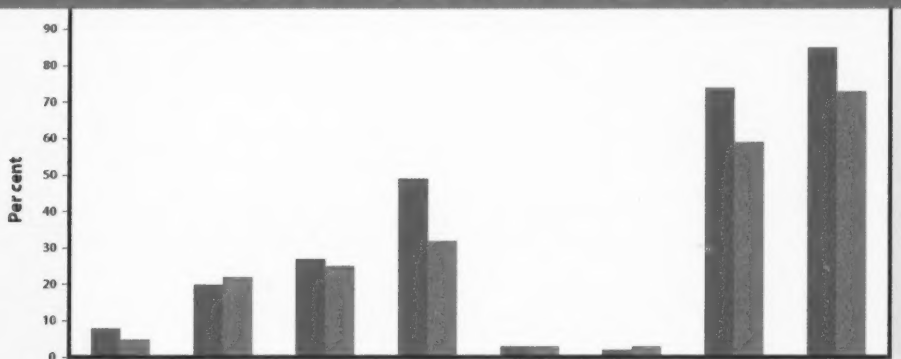
The prevalence of gambling in BC has been assessed through both self-reported measures (provincial surveys) and administrative datasets. The BC government conducted provincial surveys in 2002 and 2007 to assess the nature and extent of gambling in the province, using the Canadian Problem Gambling Index (CPGI). As shown in Figure 4.8, these survey data indicate that the overall rate of past year participation in gambling declined between 2002 and 2007 from 85 per cent to 73 per cent. Bingo, charity raffles (e.g., hospital lotteries)[8] and lotteries declined the most, while participation in cards and Internet gambling increased, and participation in non-casino EGMs remained the same.

Based on the two provincial surveys in 2002 and 2007, there were also changes in the proportions of gamblers assessed at each CPGI level in BC between the survey years (see sidebar *Canadian Problem Gambling Index Levels*).[m] As demonstrated in Figure 4.9, between 2002 and 2007, the proportion of non-gamblers in BC increased substantially, from 15.0 to 27.1 per cent of the population age 18 and up. Non-problem gamblers age 18 and up decreased from 69.3 to 59.6 per cent, low-risk gamblers decreased from 11.1 to 8.7 per cent, and the percentage of moderate-risk gamblers decreased from 4.2 to 3.7 per cent. However, the percentage of problem gamblers more than doubled, increasing from 0.4 to 0.9 per cent. Based on BC Stats population estimates for 2002 and 2007, this represents an increase in the approximate number of problem gamblers in BC from nearly 13,000 to more than 31,000 in only five years.[59]

While a formal trend analysis is not possible with only two data points, these data suggest

Figure 4.8

Percentage of Population Reporting Past Year Gambling Participation, Age 18+, by Type, BC, 2002 and 2007



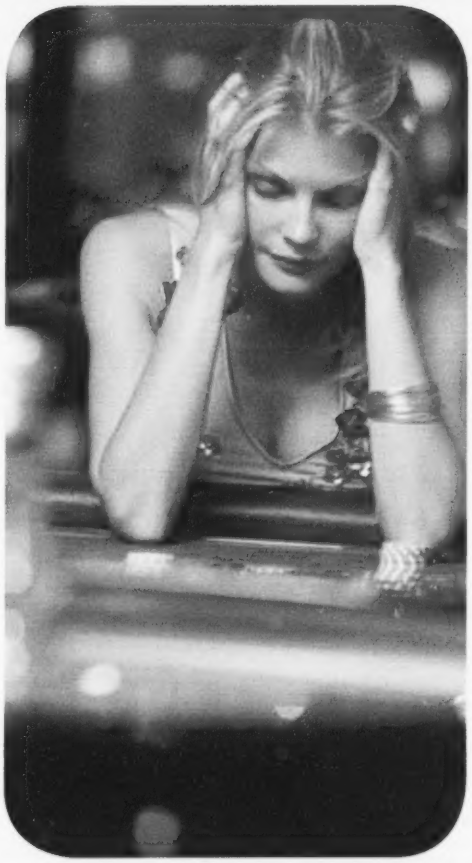
	Bingo	Cards	Casino Slots	Charities	EGMs (Non-Casino)	Internet Gambling	Ticket Lotteries	Any Activity
2002	8	20	27	49	3	2	74	85
2007	5	22	25	32	3	3	59	73

Type of Gambling

Note: EGMs = electronic gaming machines. Since there were no legal EGMs outside of casinos in BC before 2005 (when the BCLC began placing slot machines in community gaming centres throughout the province), it can be presumed that gamblers reporting this type of play in 2002 were either playing out-of-province machines or illegal machines located in the province. For all types, the rates of gambling participation may not account for gambling that occurred outside of BC.
Source: Canadian Partnership for Responsible Gambling. 2004 and 2012. *Canadian Gambling Digest 2002-2003* and *2010-2011*. Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

[m] The term "problem gambler" typically includes those who have moderate and more severe gambling problems.

that substantial numbers of non-problem and low-risk gamblers in BC are gravitating toward non-gambling, while moderate-risk gamblers may be gravitating toward problem gambling. Although it is hard to determine conclusively, the tripling of EGMs in BC since 2002/2003 (see Figure 4.6) may explain some of the observed increase in problem gambling, since this form of gambling is associated with higher rates of problem gambling.[6,56]



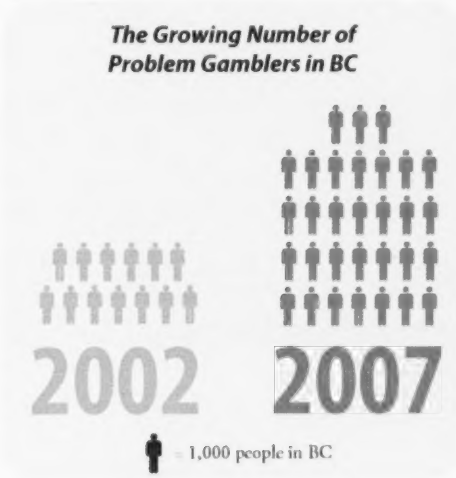
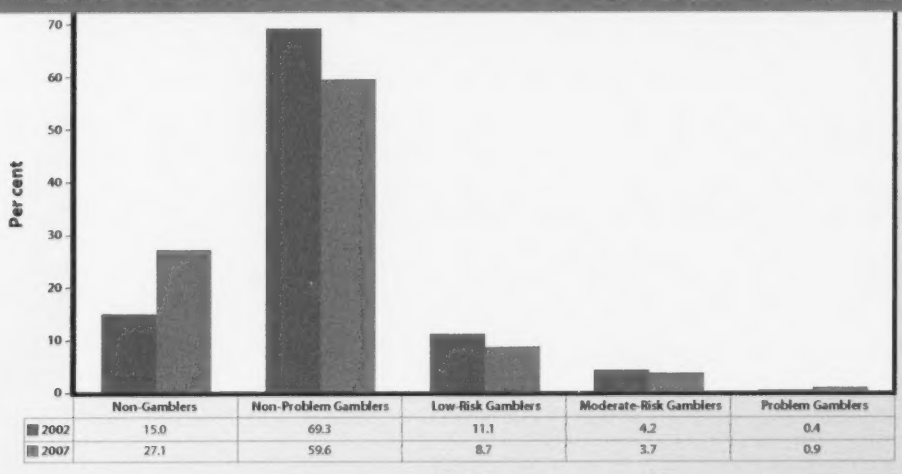


Figure 4.9

Problem Gambling Prevalence, Age 18+, by Canadian Problem Gambling Index Level, BC, 2002 and 2007



Note: The rates of gambling participation do not account for gambling that may have occurred outside of BC. The levels of problem gambling are derived from the Canadian Problem Gambling Index (CPGI). According to analyses completed by the Gaming Policy and Enforcement Branch, the increase in the estimate of problem gamblers and the decrease in the estimate of low-risk gamblers are statistically significant ($p<.05$ and $p<.01$, respectively), from 2002 to 2007.

Source: Canadian Partnership for Responsible Gambling, 2004 and 2012. *Canadian Gambling Digest 2002-2003* and *2010-2011*. Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Canadian Problem Gambling Index Levels

The Canadian Problem Gambling Index (CPGI), launched in 2001, was developed to provide a "more meaningful measure of problem gambling for use in general population surveys, one that reflected a more holistic view of gambling and placed it in a more social context." The CPGI asks a series of questions about gambling involvement (e.g., frequency, spending levels), problem gambling behaviours (e.g., gambling-related health or financial problems, difficulty stopping), and correlates of problem gambling (e.g., substance use, depression).

CPGI scores are based on the number of "sometimes," "most of the time," and "almost always" responses given to nine behavioural indicators for problem gambling. Based on the resulting score (up to a maximum of 27), respondents are assigned to one of the following five categories:

- ***Non-gamblers*** (score: 0) – have not gambled at all in the past 12 months.
- ***Non-problem gamblers*** (score: 0) – are unlikely to have experienced any adverse consequences from gambling.
- ***Low-risk gamblers*** (score: 1 to 2.5) – are unlikely to have experienced adverse consequences from gambling, but will have responded "sometimes" or "most of the time" to at least one indicator of problem gambling behaviour.
- ***Moderate-risk gamblers*** (score: 3 to 7.5) – may or may not have experienced adverse consequences from gambling, but will have responded "most of the time" to more than one and/or responded "always" to at least one indicator of problem gambling behaviour.
- ***Problem gamblers*** (score: 8 to 27) – "have experienced adverse consequences from their gambling, and may have lost control of their behavior. Involvement in gambling can be at any level, but is likely to be heavy."[10]

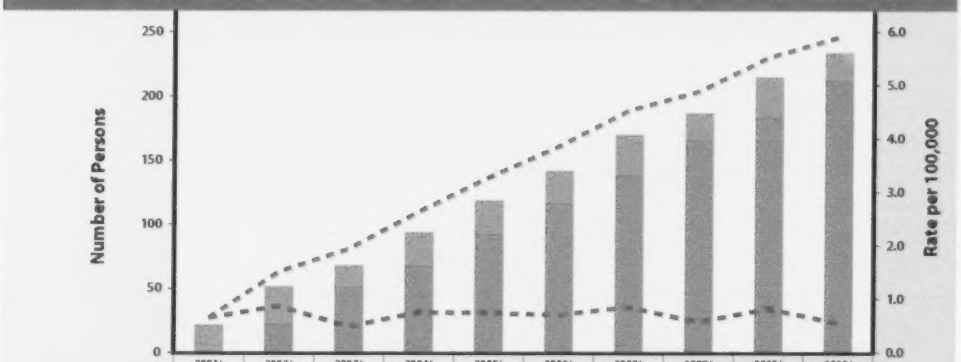
Impact of Problem Gambling – Hospitalizations

Problem gambling can also be assessed through hospitalization discharge data. These data only show the more severe problem gambling cases, and will not reflect the large number of cases that did not involve hospitalization, or cases without problem gambling noted on the hospital discharge abstract summary. As shown in Figure 4.10, the crude incidence rate is fairly stable, while the total prevalence and the crude prevalence rate have increased. This suggests that some of the previously unidentified prevalent cases are gradually being identified (incidence) when admitted to hospital, usually for another condition.

Hospitalization discharge data for BC also indicate that problem gambling admissions in BC in 2010/2011 varied by age and sex. As shown in Figure 4.11, overall, males have hospitalization counts that are nearly double the female counts, and males make up 65 per cent of problem gambling cases counted during 2010/2011 (compared to 35 per cent for females). These data also show that male counts for problem gambling admissions peak at 35 to 44 years old, while female counts peak at 45 to 54 years old.

Figure 4.10

Hospital Problem Gambling Cases, Annual Incidence and Prevalence Counts and Rates, Age 15+, BC, 2001/2002 to 2010/2011



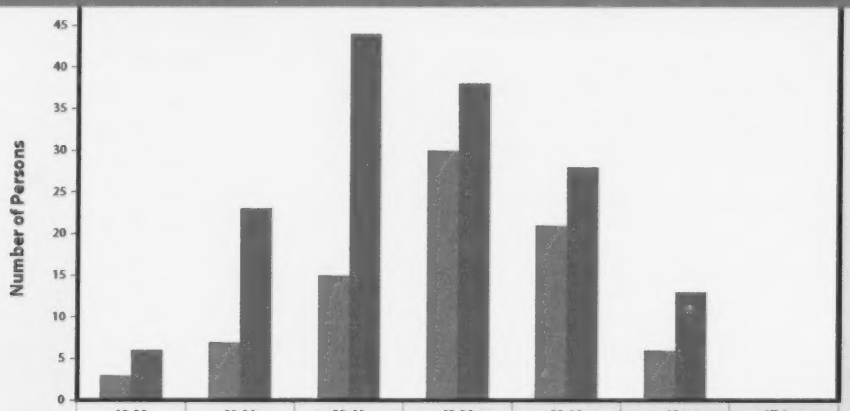
	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Incidence	22	30	17	27	27	26	32	22	32	22
Past Prevalence	-	22	51	67	92	116	138	165	183	212
Total Prevalence	22	52	68	94	119	142	170	187	215	234
Crude Incidence Rate	0.65	0.87	0.49	0.76	0.74	0.71	0.85	0.57	0.82	0.56
Crude Prevalence Rate	0.65	1.51	1.94	2.64	3.28	3.86	4.53	4.89	5.52	5.90

Year

Note: The standard population is based on the 2010 BC population age 15 and up without a problem gambling diagnosis. "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

Figure 4.11

Hospitalized Problem Gambling Cases, Age 15+, Prevalence Cases by Age and Sex, BC, 2010/2011



	15-24	25-34	35-44	45-54	55-64	65+	All Ages
Females	3	7	15	30	21	6	82
Males	6	23	44	38	28	13	152
Total	9	30	59	68	49	19	234

Age

Note: "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis, from 2001/2002 to 2010/2011.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

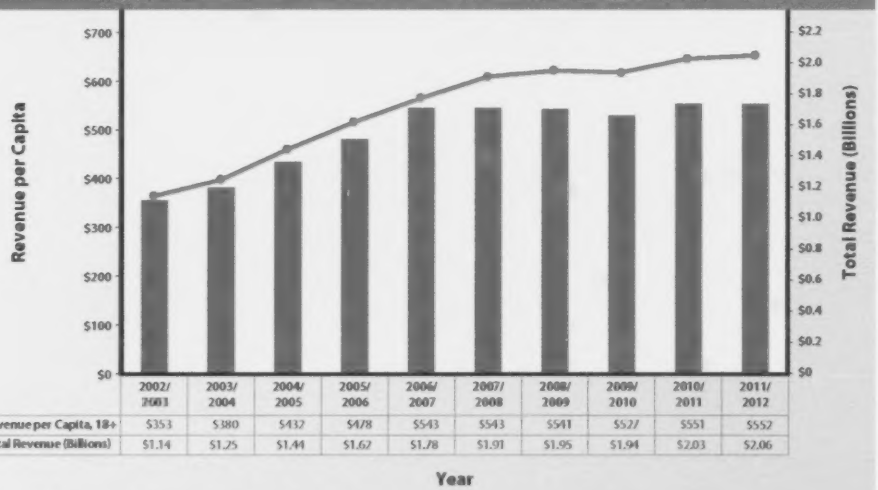
Trends in Gaming Revenue in BC

As shown in Figure 4.12, total revenue from gaming for the BC government increased substantially between 2002/2003 and 2011/2012. In the same time period, government revenue from gaming increased 56 per cent, from $353 to $552 per capita age 18 and up; however, this revenue has remained relatively stable in BC since reaching $543 per capita in 2006/2007. While overall revenue has increased, gambling participation has decreased, with both a decrease in average gambling participation and an increase in the percentage of non-gamblers (see Figures 4.8 and 4.9). This suggests that the increase in revenue since 2002/2003 is coming from fewer individual gamblers in BC.

Trend analysis of BC government revenue from gaming between 2002/2003 and 2010/2011 (Figure 4.13) indicates that the percentage of revenue from casinos (approximately 70 per cent of which is from casino-based EGMs) has increased slightly for a few years, but has remained relatively stable since 2005/2006. The percentage of government revenue from non-casino EGMs and Internet gaming has increased, while

Figure 4.12

Gaming Revenue per Capita, Age 18+, and Total Gaming Revenue, BC, 2002/2003 to 2011/2012



Note: Revenue is after prizes are paid and before expenses are deducted.
Source: Canad[illegible]artnership for Responsible Gambling, 2004-2013. *Canadian Gambling Digest 2002-2003 to 2011-2012*. Data compiled by the Centre for Add[illegible]s Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Hea[illegible] June 2013.

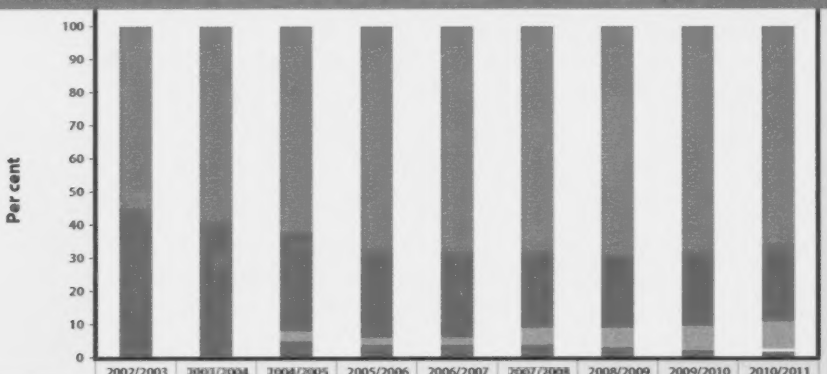
the percentage of government revenue from lotteries and bingo has decreased.

The variation over time apparent in Figure 4.13 may be related to a number of different factors, including changes in government policy. For example, the growth in revenue from non-casino EGMs is likely a reflection of the decision to place slot machines in community gaming centres beginning in 2005 and to expand their numbers further after 2007. The growth in revenue from Internet gaming likely stems, at least in part, from decisions to expand its availability, including the launch of web-based, casino-type gambling on the province's *PlayNow.com* website in 2010. In addition, according to reports released by the Canadian Partnership for Responsible Gambling, the percentage of casino revenue from slot machines increased steadily over the last nine years in BC, from 59 per cent in 2002/2003 to 72 per cent in 2010/2011 (after prizes are paid and before expenses are deducted).[14,31] Factoring in the revenue from casino-based EGMs, the percentage of total gaming revenue earned from all slot machines in BC was approximately 55 per cent in 2011/2012,[29] confirming that the majority of BC government gaming revenue now comes from EGMs.

> "The majority of BC government gaming revenue now comes from EGMs."

Figure 4.13

Percentage of Government-Operated Gaming Revenue from Major Gaming Sectors, BC, 2002/2003 to 2010/2011



	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Casinos (Including EGMs)	55.0	58.8	62.0	67.0	68.0	68.0	69.0	68.1	66.1
Ticket Lotteries	38.2	35.0	30.0	27.0	26.0	23.0	22.0	22.2	23.0
EGMs (Non-Casino)	-	-	3.0	2.0	2.0	5.0	6.0	7.4	8.2
Internet Gaming	-	-	-	-	-	-	-	0.1	0.8
Bingo	6.8	6.2	5.0	4.0	4.0	4.0	3.0	2.1	1.9

Year

Note: In 2011, the Canadian Partnership for Responsible Gambling changed reporting methods. To allow for comparisons across years, calculations have been performed to 2009/2010 and 2010/2011 data. Numbers may not total 100 due to rounding. Revenue is after prizes are paid and before expenses are deducted. EGMs = electronic gaming machines. A "-" indicates that data were unavailable for that year.

Source: Canadian Partnership for Responsible Gambling. 2004-2012. *Canadian Gambling Digest 2002-2003* to *2010-2011*. Data compiled and modified by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

The Proportion of Government Gaming Revenue Attributable to Problem Gambling

The proportion of gaming revenue that comes from both moderate-risk and problem gamblers should be considered in the development of gambling policy in BC and Canada. The prevalence of moderate-risk and problem gambling in the general population of BC in 2007 was an estimated 4.6 per cent of the population age 18 and up, as shown in Figure 4.9 (approximately 159,000 people[n]). Research from Canada and elsewhere indicates that problem gamblers likely account for a disproportionate share of gaming revenue. Table 4.4 compares the prevalence of problem gamblers (using different screening instruments) to the estimated proportion of revenue derived from problem gamblers in several Canadian and international jurisdictions. This table also provides a ratio of the proportion of revenue over the prevalence of problem gamblers, which demonstrates the level of disproportion between prevalence of problem gamblers and the proportion of revenue derived from them. While higher ratios might be attributable to lower estimated prevalence rates (e.g., the United States and the DSM-IV), the consistently high ratio for these jurisdictions demonstrates that a large portion of gaming revenue is derived from a small portion of the population that includes people who may be experiencing challenges with addictive gambling behaviour.

The revenue derived from problem gamblers is important to policy for several reasons:

- It has a direct relationship to the harms associated with gambling.
- It has the potential to weaken incentives for government action to address problem gambling, since such efforts could substantially reduce revenue.
- It has the potential to affect decisions about gambling regulations, such as those designed to reduce high levels of spending by individual gamblers (e.g., setting low bet limits).

Although the proportion of revenue derived from problem gamblers is an important public policy issue, accurately estimating it is difficult for a number of reasons. For example:

- A bias in some screening instruments may lead to an overestimate of the prevalence of problem gambling (e.g., the South Oaks Gambling Screen – see sidebar *"Problem" and "Pathological" Gambling* in Chapter 1).
- The sampling limitations inherent in telephone-based population surveys, which may lead to an under-sampling of problem gamblers and an underestimate of problem gambling prevalence in BC. Both face-to-face and self-administered surveys have been found to produce more valid results than telephone surveys for sensitive behaviours such as problem gambling.[61]
- Gamblers do not always disclose their true gambling patterns (e.g., winnings and losses). Studies in Australia, New Zealand, and the United States have demonstrated sizeable differences between the amounts gamblers claimed to have spent and the amounts reported as revenue by government and industry.[62]

As a result of these factors, when self-reported spending on gambling is aggregated across the population, it often does not equate with actual revenue from gaming.[63]

While estimates of the proportion of revenue derived from problem gamblers vary based on the methods used and when and where the data were collected, several conclusions can be drawn from available research. First, it is clear that the proportion of revenue

[n] 2007 estimate of BC population age 18 and up (3,453,948) x percentage of the population age 18 and up that are moderate-risk or problem gamblers (0.046) = 158,882 moderate-risk and problem gamblers in BC. Population estimate age 18 and up was obtained from the BC Stats website.[59]

Table 4.4

Comparison of Estimates of the Proportion of Revenue Derived from Problem Gamblers, Canadian and International Jurisdictions

Jurisdiction(s)	Prevalence of Problem Gamblers in Population (Screening Instrument Used)	Proportion of Revenue Derived from Problem Gamblers	*Ratio*
British Columbia[62]	4.6% (CPGI)	26%	*5.7*
Alberta[62]	5.2% (CPGI)	31%	*6.0*
Ontario[63]	4.8% (CPGI)	36%	*7.5*
Canada (Provincial Average)[62,63]	4.2% (CPGI)	32% (using weighted data; otherwise 23%)	*7.6*
United States (4 States) and Canada (3 Provinces)[69]	N/A (SOGS)	30% (ranging from 23% to 41%)	*N/A*
United States[68]	0.5% (DSM-IV)	15%	*30*
Australia[105]	4.9% (SOGS)	33%	*6.7*
Australia[6]	N/A (CPGI) (for electronic gaming machine players only)	60% (41% for severe problem EGM gamblers, 19% for moderate problem EGM gamblers)	*N/A*
New Zealand[60]	1.3% (SOGS)	19%	*14.6*

Note: Ratio calculated as proportion of revenue over prevalence of problem gamblers. Canada (Provincial Average) excludes Newfoundland and Labrador, for which data were not available. CPGI = Canadian Problem Gambling Index; SOGS = South Oaks Gambling Screen; DSM-IV = *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition. Problem gambling is defined as meeting three or more of the DSM-IV criteria for pathological gambling in the past year (United States), having a SOGS score of three or more in the past six months (New Zealand), or having a CPGI or SOGS score of three or higher in the past year (all other jurisdictions).

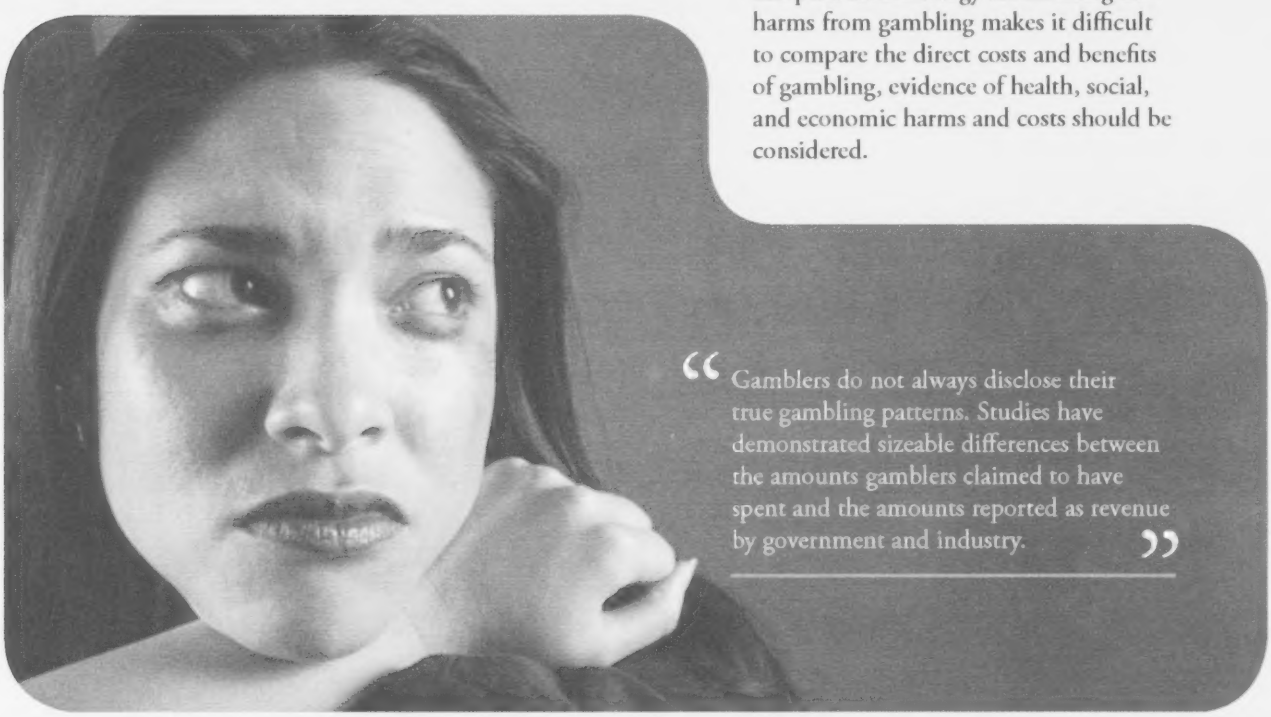
Source: Adapted from Williams R, Wood R. 2004. The proportion of gaming revenue derived from problem gamblers: Examining the issues in a Canadian context. *Analyses of Social Issues and Public Policy*.[67]

derived from problem gamblers is much higher than the prevalence of problem gamblers. As shown in Table 4.4, the ratio for the proportion of revenue derived from problem gamblers compared to the prevalence of problem gamblers varies from a high of 30[68] to a low of 5.7.[62] Second, the proportion of revenue derived from problem gamblers varies substantially based on game type.[6,62,63] More specifically, the proportion of revenue from problem gamblers is generally lower for lotteries, instant-win tickets, bingo, and raffles, while it is generally higher for EGMs. Finally, findings from several studies[6,62,63,69,70,105] indicate that the proportion of revenue differs based on the severity of the gambling problem, with more severe problem gamblers accounting for much more revenue than moderate problem gamblers (e.g., 41 per cent versus 19 per cent in the case of the 2010 Australian Productivity Commission study).[6] This inequity persists even though in all the study populations there were several times more moderate problem gamblers than severe problem or pathological gamblers.

Gambling-Related Harms and Costs

Unlike the case of gambling-related revenue, BC does not regularly assemble data on the social and economic harms and costs of gambling. This is partly a methodological issue because, unlike other social issues like problem drinking, accepted methods of comprehensively assessing gambling-related social costs have not yet been developed.[71] For example, in the case of problem drinking, alcohol-attributable fractions are used to assign portions of certain health and social harms from alcohol (e.g., cancer, liver cirrhosis, crime), so that the total harms and costs of risky drinking can be estimated across all types of known harm.[72]

Further, as discussed in the section on the social and economic impacts of gambling earlier in this report, many of the costs associated with gambling are non-monetary, and attempts to transform them into monetary terms can lead to serious under- or over-estimates, depending on the assumptions made. While the lack of accepted methodology for assessing the harms from gambling makes it difficult to compare the direct costs and benefits of gambling, evidence of health, social, and economic harms and costs should be considered.



> "Gamblers do not always disclose their true gambling patterns. Studies have demonstrated sizeable differences between the amounts gamblers claimed to have spent and the amounts reported as revenue by government and industry."

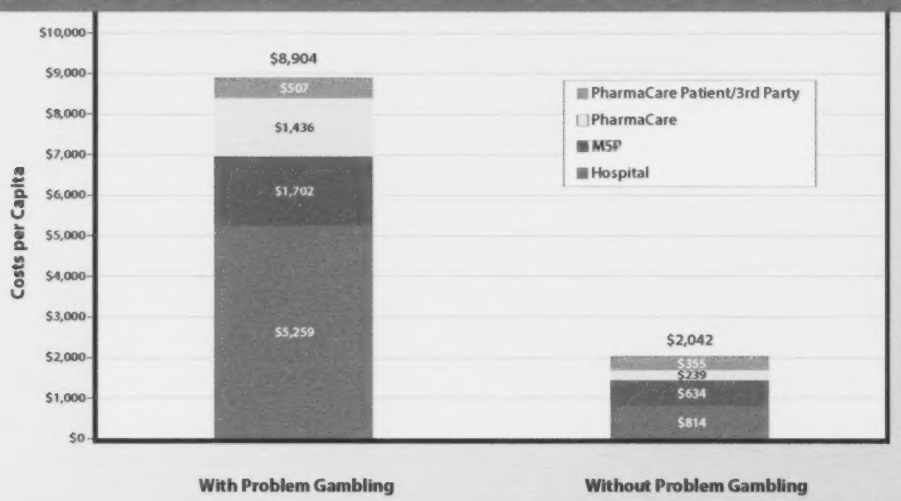
Economic Costs

A crude estimate of the excess health care costs associated with problem gambling can be made through an examination of related Ministry of Health administrative datasets. Using this information, a total of 257 unique cases of problem gambling[o] were identified within the BC medical system between 2000/2001 and 2010/2011.[73] The average incidence was 26 cases per year. As discussed earlier regarding the assessment of problem gambling prevalence through hospitalization discharge data, these numbers refer only to hospitalized patients, and thus, are likely a substantial underrepresentation of true prevalence. Figure 4.14 compares the 2010/2011 average annual per capita health care costs of problem gambling cases with the average per capita costs for all patients who were not diagnosed with problem gambling. It was estimated that, on average, problem gamblers incur more than four times the medical-related expenses than patients who are not diagnosed with this condition. This translates into an average excess medical cost of $6,862 per problem gambler per year in BC. The medical costs of patients with a problem gambling diagnosis are particularly disproportionate for hospital and PharmaCare costs.

Factoring this estimated excess cost with the total estimate of problem gamblers in the province in 2011 (based on the 2007 CPGI prevalence estimate shown in Figure 4.9 of 0.9 per cent of the population age 18 and up), the total excess health care cost is estimated at $230 million for 2011.[p] This is just over 1 per cent of the 2010/2011

Figure 4.14

Age-Standardized Health Care Costs per Capita, Age 15+, with and without Hospitalized Problem Gambling Diagnosis, BC, 2010/2011



Note: The standard population is based on the 2010 BC population without a problem gambling diagnosis. "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

[o] In this context, "problem gambling" includes only hospitalized individuals with an ICD-10 diagnosis of either F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified).
[p] 2011 estimate of BC population age 18 and up (3,728,596) x percentage of the population age 18 and up that are problem gamblers (0.9 per cent or 0.009) = 33,557 problem gamblers age 18 and up in BC. Approximate number of problem gamblers (33,557) x estimated excess health care costs per capita ($6,862) = total estimated excess health care costs of $230,268,134 per year. Population estimate age 18 and up was obtained from the BC Stats website.[59]

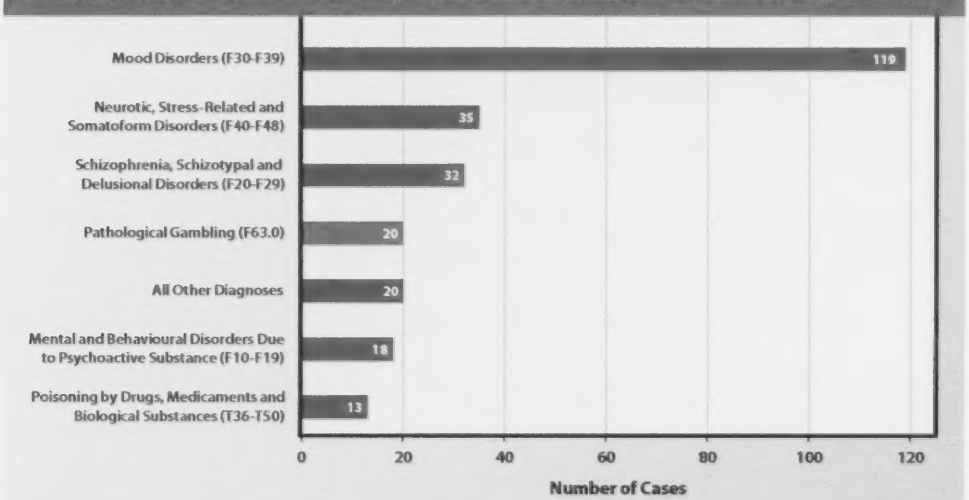
provincial health budget. It is also equivalent to approximately 21 per cent of net government gaming revenue for that fiscal year ($1.106 billion). It is unlikely that all problem gamblers share the same health conditions and concerns as those who have presented to the medical system, and other factors may also reduce or contribute to these costs. Therefore, this estimate is not a perfect measure of the excess costs of problem gamblers to the medical system, but it does provide a general sense of the magnitude of related costs.

Social and Health-Related Harms

Analyses of individuals hospitalized with a diagnosis of problem gambling indicate that these cases suffer from a serious burden of mental health problems. Among the cases shown in Figure 4.15, of individuals hospitalized with a problem gambling diagnosis, the most common primary diagnosis by far was mood disorders (F30-39) at 119 cases (46 per cent), followed by neurotic, stress-related and somatoform disorders (F40-48) at

Figure 4.15

Primary Diagnosis of Individuals Hospitalized with a Problem Gambling Diagnosis, Age 15+, BC, 2001/2002 - 2010/2011



Note: "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis. N=257, which consists of 234 prevalent cases and 18 deceased and five former BC residents.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

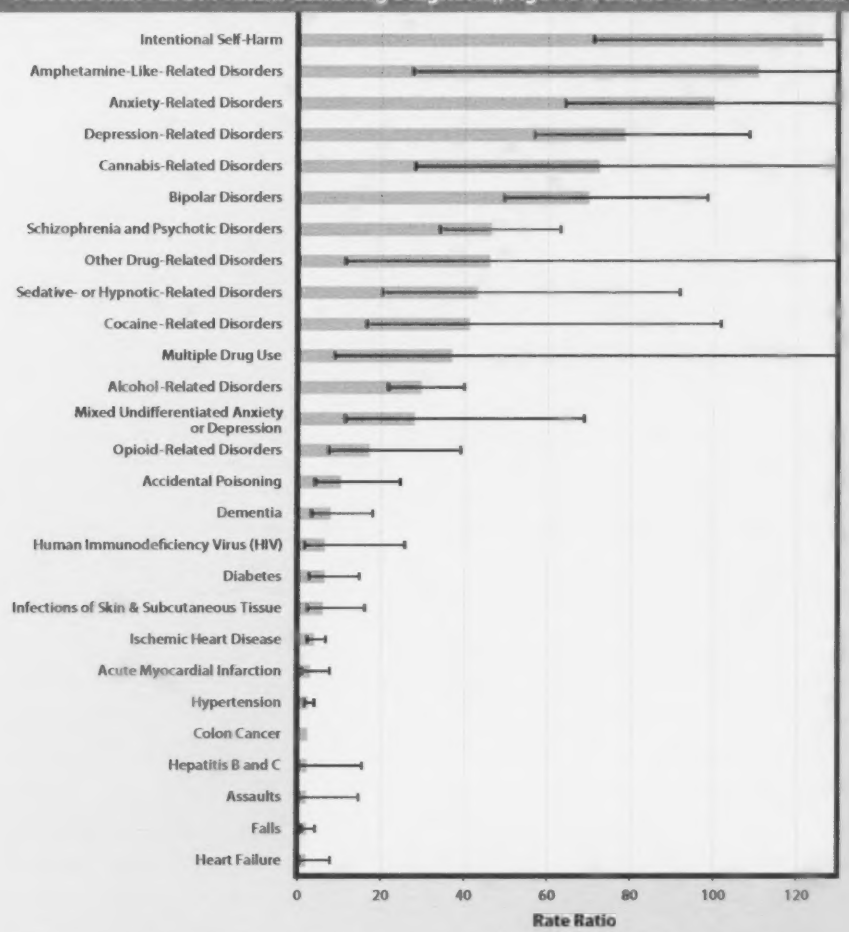
35 cases (14 per cent), and schizophrenia, schizotypal and delusional disorders (F20-29) at 32 cases (12 per cent). Twenty cases (8 per cent) had a primary diagnosis of pathological gambling (F63.0).

As shown in Figure 4.16, age-standardized hospital co-morbidity rates and rate ratios demonstrate that problem gambling cases are significantly more likely than non-cases in the population to be hospitalized with conditions related to mental illness or problematic substance use, as well as other health conditions. These data corroborate the findings in Figure 4.15 that individuals diagnosed with gambling problems suffer from a considerable mental health burden. For a more detailed representation of the co-morbidity rates and rate ratios depicted in Figure 4.16, see Appendix B.

Research also shows that gambling can result in many negative personal consequences, including unemployment, crime, mental illness, and marital breakdown. In addition to these consequences to individuals and families, these elements can have a negative impact on Canada's social structure.[62]

Figure 4.16

Age-Standardized Co-Morbidity Rate Ratios (Rate of Co-Morbidity of Persons with a Problem Gambling Diagnosis, Over the Rate of Co-Morbidity of Persons without a Problem Gambling Diagnosis), Age 15+, BC, 2006/2007 - 2010/2011



Note: "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis. For 2001/2002 - 2010/2011, N=257, which consists of 234 prevalent cases and 18 deceased and five former BC residents. Confidence intervals that exceed the axis of this chart can be found in Appendix B.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

In their review of literature regarding the impacts of gambling, Williams et al.[7] found that those who were heavily involved in gambling (who are often problem gamblers) were more likely to have low satisfaction with life and poorer mental health than those not heavily involved in gambling. Further, the researchers note that non-gamblers report higher levels of happiness than gamblers.

Research also highlights that problem gamblers often have partners and/or children, which can lead to negative impacts that extend beyond problem gamblers themselves.[7] About one in seven British Columbians (14.3 per cent) who participated in a 2007 BC Problem Gambling Prevalence Study reported that they had experienced problems as a result of someone else's gambling. Interestingly, problem gamblers were more likely than non-problem gamblers to report that they had experienced problems as a result of someone else's gambling.[8]

At a community level, gambling can have positive or negative implications. Positive benefits may include an enhanced tourist industry and increased profit for related businesses, while negative impacts may include greater reliance on local gambling, and related reductions in profits for other (non-gambling-related) businesses. A casino introduced in Windsor, Ontario, was designed to attract nearby American consumers in the 1990s, but changes in border and passport requirements, a higher Canadian dollar, and new casinos on the American side of the border in Detroit negatively impacted the revenue seen from the casino.[74] The economic changes in the last 10 years have also resulted in layoffs. While many local business owners claim that the casino has diverted money toward gambling and away from other businesses, the municipal government maintains that the casino has resulted in a positive impact on the community, reducing the potentially larger negative impacts of the recession.[75] Subsequently, in 1996, Niagara Falls, Ontario, opened a casino designed to attract additional tourists from the United States. The casino also attracted local residents, resulting in increased local spending on gambling. These funds were diverted from other forms of entertainment in the community, and the positive gains seen by increased tourism were offset by this diversion of local spending. In addition, self-reports of gambling-related problems, along with reports of friends and family with gambling-related problems, increased significantly after the casino opened.[76]

Summary

Game availability, gaming revenue, and the number of people gambling have all increased substantially in recent years in Canada. Yet in BC, fewer people are gambling. BC receives more than the national average in gaming revenue, yet spends the lowest amount of gaming revenue per capita age 18 and up on problem gambling compared to other provinces examined. Evidence also shows that while gambling participation is declining, gaming revenue has increased, meaning that more revenue appears to be coming from fewer gamblers. This may be attributable to the increase in EGMs in BC, an especially problematic gaming type, which has increased by 210 per cent over the last nine years. Self-reported problem gambling appears to be on the rise in BC; a trend that the limited data available suggest may be reflected in hospital admissions. The impacts of this increase in problem gambling are both economic and social. Economic impacts include the high medical costs attributed to problem gamblers. Social costs include a high incidence of co-morbidity with mental illness, along with divorce, crime, unemployment, and other difficulties. The next chapter presents promising practices for preventing and treating problem gambling, and describes related responses and initiatives in BC and Canada.

Chapter 5

Promising Practices for Reducing Gambling-Related Harms and Costs

Promising Practices for Preventing and Treating Problem Gambling

Research about how to prevent and treat problem gambling is ongoing; however, several best or promising practices have become evident.

Preventing Problem Gambling

Numerous promising practices for reducing the incidence of problem gambling have been identified through research and practice. The sidebar *Best Practices to Prevent Problem Gambling* provides an overview of best practices derived from related research. Table 5.1 presents a list of problem gambling prevention initiatives, including assessments of their general effectiveness. As shown in this table, BC currently uses many problem gambling prevention initiatives. The table also shows opportunities for adding or revising prevention initiatives in BC, since some of the programs and policies in BC are not supported by evidence, while other policies that have demonstrated "moderate" or "moderately high" effectiveness are not yet used in BC.

Best Practices to Prevent Problem Gambling

1. Strive for optimal design and evaluation of new problem gambling prevention initiatives.
2. Recognize that effective prevention involves decreased revenue and may cause some inconvenience to non-problem gamblers.
3. Employ and coordinate a wide array of educational and policy initiatives (see Table 5.1 for a comprehensive menu).
4. Decrease the general availability of gambling.
5. Eliminate, reduce, and/or constrain higher-risk forms of gambling (e.g., electronic gaming machines and Internet gambling).
6. Eliminate reward and/or loyalty cards or use them to collect information to help foster responsible gambling and identify problem gamblers.
7. Restrict who is eligible to gamble (e.g., raise the legal gambling age).
8. Restrict the use of tobacco and alcohol while gambling.
9. Restrict access to money while gambling (e.g., remove or limit the number of ATM machines in casinos).
10. Impart responsible gambling knowledge, attitudes, and skills to gamblers.
11. Keep prevention initiatives in place for a sustained period.[77]

Table 5.1

Problem Gambling Prevention Initiatives with Estimates of Effectiveness

	Present in BC	Estimated Effectiveness			
		Moderately High	Moderate	Moderately Low	Low
AWARENESS AND EDUCATIONAL INITIATIVES			X		
Childhood (upstream) interventions to address risk/protective factors	X	X			
Information/awareness campaigns	X			X	
On-site information/counselling centres	X			X	
Statistical instruction*	X			X	
School-based prevention programs	X		?		
POLICY INITIATIVES		X			
Restrictions on the general availability of gambling		X†			
Restricting the number of gambling venues		X†			
Restricting more harmful types of gambling	X††	X†			
Restricting the location of gambling venues		X			
Limiting the number of gambling formats			?		
Restricting gambling to dedicated gambling venues	X		?		
Limiting gambling venue hours of operation				?†	
Restrictions on who can gamble			?		
Increasing legal age for gambling			X		
Self-exclusion programs	X			X	
Restricting venue entry to non-residents		?			
Prohibition of youth gambling	X		?		
Restricting venue entry to higher socio-economic classes			?		
Restrictions on or modifications of how gambling is provided			X		
Modifying electronic gaming machine parameters**				X	
Restricting concurrent use of alcohol and tobacco	X†††	X			
Mandatory player pre-commitment***			X		
Automated or mandated interventions for moderate-risk gamblers			X		
Government provision of gambling	X		X		
Restricting advertising	X			X	
Operator-imposed maximum loss limits	X	?			
Eliminating reward/loyalty cards or changing their parameters			?		
Restricting access to money			?		
Increasing the cost of gambling				?	
Problem gambling training for employees of gambling venues	X			?	
Gambling venue design	X				?

* Statistical instruction is designed to increase knowledge of the probabilities involved in gambling.
** Modifications may include decreasing maximum bet and win size, reducing speed of play, reducing frequency of play, not conveying near misses, reducing number of betting lines, eliminating bill acceptors, reducing the interactive nature of electronic gaming machines, presenting responsible gambling pop-up messages between plays, and removing any integrated seating on machines.
*** Player pre-commitment is when, prior to playing, a player sets limits on time, frequency, or money to spend on gambling.
† If the reductions in availability and time are substantial.
†† BC and Ontario are the only two provinces that do not have video lottery terminals; however, BC does have substantial and increasing numbers of slot machines, electronic casino tables, electronic Keno, electronic bingo machines, and Internet-based gambling.
††† Smoking is prohibited in all casinos and community gaming centres in BC.

Note: "?" indicates insufficient evidence of effectiveness to identify as a best practice.
Source: Williams R, West B, Simpson R. 2012. *Prevention of Problem Gambling: A Comprehensive Review of the Evidence and Identified Best Practices.* BC data compiled by the Centre for Addictions Research of BC, 2013.

The Australian Productivity Commission proposes that since problem gamblers account for a large share of gambling revenue, gambling regulations should prioritize harm reduction for these players over any potential inconvenience to recreational players. Therefore, proponents of higher-risk forms of gambling should be responsible for proving that such forms do not cause harm to problem gamblers. Additionally, evidence-based policy decisions should not focus on whether reducing bet limits will inconvenience non-problem gamblers, but whether higher betting limits are safer for all players.[78]

Treating Problem Gamblers

Research into effective problem gambling treatment is still evolving. According to multiple review articles, the strongest evidence of effectiveness exists for psychological and cognitive behavioural interventions, many of which have been adapted from alcohol and drug treatment programs.[79,80,81,82] These include cognitive behavioural therapy, psychoanalytical and psychodynamic treatments, and motivational interviewing.[81,82,83] Other treatment modalities that have more limited evidence of effectiveness include self-help treatments,[84] pharmacotherapies,[85,86] Internet-based therapies for youth,[87] brief interventions (most effective for moderate-risk gamblers), Gamblers Anonymous, family-based therapy,[82] and mindfulness-based treatment.[88]

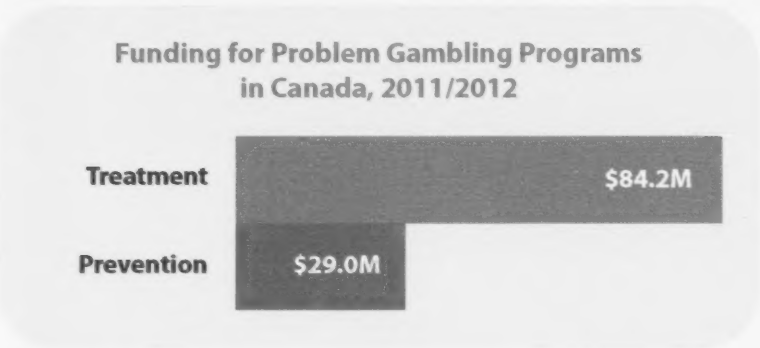
One issue consistently raised in the literature on treatment for problem gambling is the difficulty in engaging problem gamblers in treatment even when free, publicly-funded treatment is available.[89] Data from BC highlight this difficulty. In 2011, there were an estimated 171,515 moderate-risk and problem gamblers in BC.[9] However, in 2010/2011, only 2,034 individuals received counselling for problem gambling through provincial programming. This means that just over 1 per cent of all problem gamblers in the province received specialized treatment through the publicly-funded treatment system.[14]

The problem of identifying and engaging problem gamblers in treatment mirrors a similar problem in the realm of problematic substance use, where only a small proportion of those who presumably could benefit from treatment actually seek out and engage with treatment services. It also highlights the importance of certain promising practices for the treatment of problem gambling, such as training staff in gambling venues to recognize and proactively assist problem gamblers. Research from Europe shows that training staff to identify patrons who may be experiencing difficulty with their gambling, and encouraging and requiring staff to intervene when such identifications are made, can lead to increases in successful referrals to treatment and reductions in problem gambling over time.[77] Another recommended approach to increase identification and engagement of problem gamblers is to use data collected from loyalty or reward card programs to track patterns of gambling at the individual level and intervene when potentially problematic patterns of play are detected.[77]

Overview of Canada's Response to Problem Gambling

Government efforts to address problem gambling take four major forms: (1) awareness and education initiatives to prevent new cases of problem gambling; (2) research programs to improve understanding of the causes and consequences of problem gambling; (3) policy interventions designed to prevent problem gambling and make gambling safer for the population; and (4) treatment programs to assist those already experiencing gambling problems.

[9] 2011 estimate of BC population age 18 and up (3,728,596) x percentage of the population age 18 and up that are moderate-risk or problem gamblers (0.046) = 171,515 moderate-risk and problem gamblers in BC. Population estimate age 18 and up was obtained from the BC Stats website.[59]



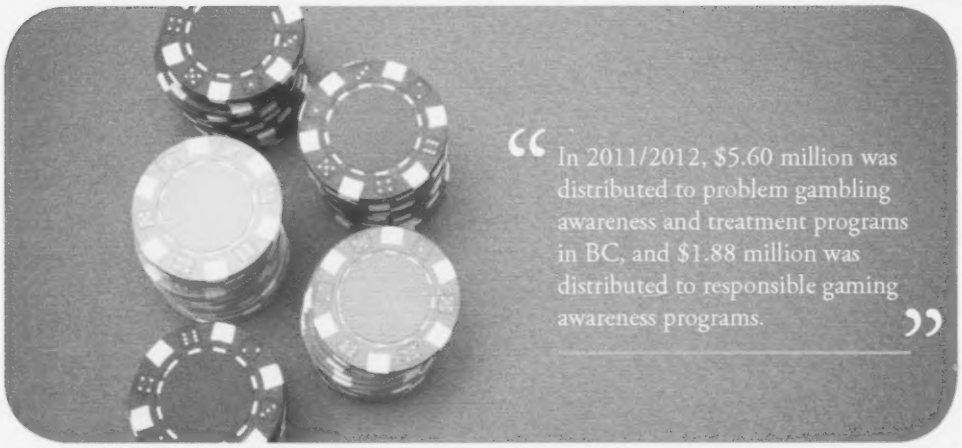
In 1993, the Canadian Public Health Association passed a resolution calling for a national assessment of gambling-related harms and costs. In the same year, New Brunswick and Alberta introduced the first publicly-funded problem gambling treatment programs in Canada. By 2002/2003, all provincial governments offered some form of publicly-funded treatment, and total government spending to address problem gambling had grown to $3.31 million across Canada. This represented an average of 0.87 per cent of gross government revenue from gaming in that year.[31]

Between 2002/2003 and 2011/2012, spending to address the harms from gambling grew dramatically across Canada, from $3.31 million to $113.2 million. While this is a large dollar amount, it represents only a small increase in the percentage, from 0.87 per cent in 2002/2003 to 1.45 per cent of total government revenue from gaming in 2011/2012.[29] During this time period, treatment programs to address problem gambling were augmented with a variety of responsible gambling initiatives designed to prevent new cases of problem gambling, including public awareness campaigns, educational initiatives, and voluntary self-exclusion programs. In 2011/2012, total expenditures to treat problem gambling were $84.2 million across Canada, while total expenditures for responsible gaming initiatives to prevent problem gambling were $29.0 million.[29]

Responsible Gaming and Problem Gambling Initiatives in BC

According to the Canadian Partnership for Responsible Gambling (CPRG), "problem gambling" initiatives generally refer to those funded by government health ministries and departments, while "responsible gaming" initiatives generally include those initiated by the government gaming industry (e.g., Crown corporations), such as self-exclusion programs, casino staff training and on-site information materials.[14] The CPRG notes that there may be overlap between these two categories. This is the case in BC, where the provincial government's Gaming Policy and Enforcement Branch oversees both responsible gaming initiatives (e.g., BC's Responsible Gambling Strategy) and problem gambling services (e.g., BC's Problem Gambling Program and all publicly-funded treatment programs) under the umbrella of the BC Responsible and Problem Gambling Program.[90,91]

The BC government first introduced its Responsible Gambling Strategy in 2003. The main goals of the current strategy, *BC's Responsible Gambling Strategy and Three Year Plan (2011/12–2013/14)*, are to create public awareness of the risks associated with gambling, to deliver gambling in a manner that encourages responsible gaming and informed choice, and to provide free treatment and support to those impacted by problem gambling.[90] This strategy encourages gaming facilities and their local host governments to "seek opportunities to enhance responsible gambling programs." This strategy also involves the BC Lottery Corporation (BCLC), which is responsible for "retail, internet, and facilities-based responsible gambling programs."[90] These programs—typically integrated into BCLC's gambling promotion and marketing efforts—include GameSense, as well as the province's Voluntary Self-Exclusion (VSE) Program,



> "In 2011/2012, $5.60 million was distributed to problem gambling awareness and treatment programs in BC, and $1.88 million was distributed to responsible gaming awareness programs."

which allows gamblers to exclude themselves from casinos, community gaming centres, and the *PlayNow.com* website.

Trends in total distributions to both problem gambling and responsible gaming initiatives are presented in Figure 5.1. These data show that total distributions to prevent and address problem gambling jumped from previous years up to $7.43 million in 2008/2009; however, some of this increase likely results from beginning to incorporate distributions to marketing and promotion in the number reported (since responsible gaming messaging is incorporated into related advertising). Since that time, there has been a small increase in distributions to problem gambling and a small decrease in distributions to responsible gaming, to $5.60 million and $1.88 million, respectively, in 2011/2012.[29]

Figure 5.1

Distributions to Problem Gambling and Responsible Gaming Programs, BC, 2002/2003 to 2011/2012

	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
Problem Gambling *(Awareness and Treatment Programs)*	$3.31	$4.00	$3.10	$4.52	$4.27	$4.84	$5.39	$5.14	$5.33	$5.60
Responsible Gaming *(Awareness Programs)*	-	$0.25	$0.25	$0.35	$0.86	$0.56	$2.04	$1.95	$1.69	$1.88

Year

Note: Numbers for responsible gaming (awareness programs) should be interpreted with caution, as distributions 2008/2009 and later reflect incorporation of funding for marketing and promotion that includes responsible gaming messaging. "Problem gambling" initiatives generally refer to those funded by government health ministries and departments, while "responsible gaming" initiatives generally include those initiated by the government gaming industry. However, BC has some overlap between these initiatives, where the provincial government's Gaming Policy and Enforcement Branch oversees both responsible gaming initiatives and problem gambling services under the umbrella of the BC Responsible and Problem Gambling Program. A "-" indicates that data were unavailable for that year.

Source: Canadian Partnership for Responsible Gambling. 2004-2013. *Canadian Gambling Digest 2002-2003* to *2011-2012*. Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

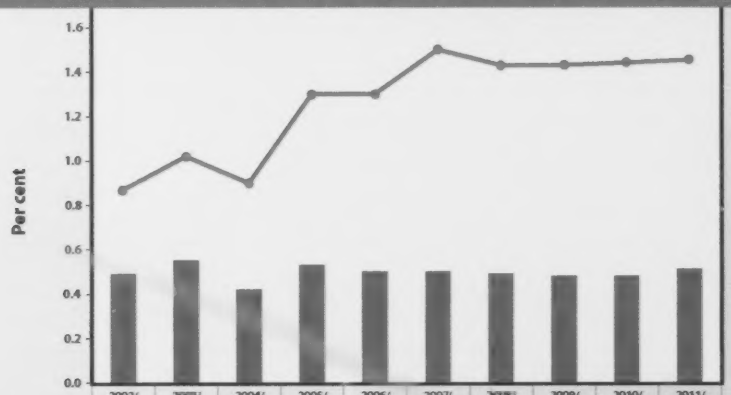
As shown in Figures 5.2 and 5.3, BC consistently spent less than the Canadian provincial average on problem gambling from 2002/2003 to 2011/2012. This holds true for the percentage of gaming revenue distributed to problem gambling programs, which has averaged 0.50 per cent for BC, compared to the Canadian provincial average of 1.25 per cent (see Figure 5.2). It is also true with regard to per capita expenditures for those age 18 and up, which averaged $1.30 for BC, but $3.33 for Canada, between 2002/2003 and 2011/2012 (see Figure 5.3).

British Columbia's Problem Gambling Prevention Initiatives

As shown earlier in Table 5.1, the BC Gaming Policy and Enforcement Branch and the BCLC have implemented a number of initiatives designed to prevent problem gambling, some of which are identified in the literature as promising practices. BC funds educational prevention initiatives, including childhood (upstream) interventions such as the Children First Regional Initiative and StrongStart BC, which help to enhance protective factors and reduce risk factors[r,92] that can predispose certain people to addictive behaviours such as problem gambling. While these programs are not directly connected to problem gambling prevention efforts, they likely contribute to efforts to prevent problem gambling across the population by enhancing protective factors and mitigating risk factors for children growing up in BC. These types of upstream interventions are rated as moderately high in effectiveness for preventing problem gambling and other social problems (e.g., problematic substance use) based on a recent review of

Figure 5.2

Percentage of Government Gaming Revenue Distributed to Problem Gambling Programs, BC and Canadian Provincial Average, 2002/2003 to 2011/2012



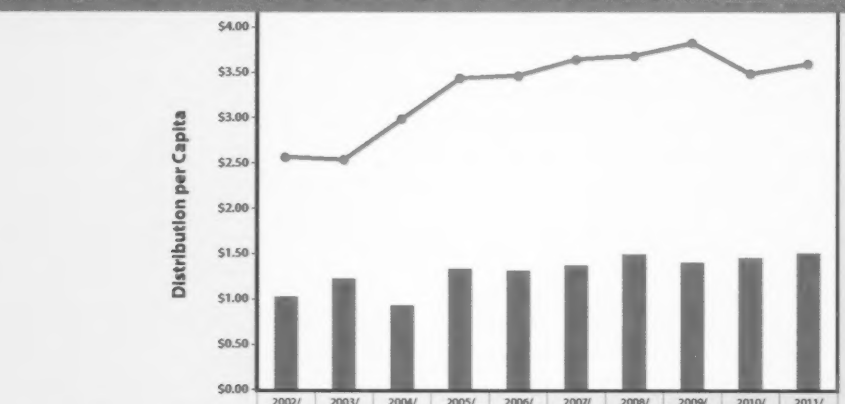
	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
% of Gaming Revenue Distributed to Problem Gambling, BC	0.49	0.55	0.42	0.53	0.50	0.50	0.49	0.48	0.48	0.51
% of Gaming Revenue Distributed to Problem Gambling, Canadian Provincial Average	0.87	1.02	0.90	1.30	1.30	1.50	1.43	1.43	1.44	1.45

Note: Canadian provincial averages based on provinces for which data were available.
Source: Canadian Partnership for Responsible Gambling. 2004-2013. *Canadian Gambling Digest 2002-2003* to *2011-2012*. Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

[r] Risk factors for problem gambling are circumstances or conditions that make it more likely that a person will eventually become a problem gambler, and can include poor coping strategies, problems at school, and having peers or family members with gambling problems. Protective factors that can mitigate risk include school connectedness and family cohesion.

Figure 5.3

Gaming Revenue Distributed to Problem Gambling Programs per Capita, Age 18+, BC and Canadian Provincial Average, 2002/2003 to 2011/2012



	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
Gaming Revenue Distributed to Problem Gambling, BC	$1.02	$1.22	$0.93	$1.33	$1.31	$1.37	$1.49	$1.40	$1.45	$1.50
Gaming Revenue Distributed to Problem Gambling, Canadian Provincial Average	$2.57	$2.54	$2.99	$3.44	$3.47	$3.65	$3.69	$3.83	$3.49	$3.59

Year

Note: Canadian provincial averages based on provinces for which data were available.
Source: Canadian Partnership for Responsible Gambling. 2004-2013. *Canadian Gambling Digest 2002-2003* to *2011-2012*. Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

the literature.[77] Other educational initiatives funded by the province include problem gambling public information and awareness campaigns; on-site prevention staff and responsible gaming information centres in gambling venues; and information campaigns that provide, among other things, statistical instruction for gamblers.[s] All of these initiatives are rated as moderate or moderately low in effectiveness.[77]

The province also delivers a series of problem gambling prevention programs, including programming for elementary, middle school, high school, and post-secondary (college and university) students. For example, the Gam_*iQ* program (see sidebar *Gam*_iQ) provides students with information about responsible and problem gambling.[95] School-based educational programs of this type have not been identified as a best or promising practice due to limited evaluation research. While evaluation data are collected on Gam_*iQ* and similar programs in BC, reports on these data have not yet been produced.[96]

*Gam*_iQ

Gam_*iQ* is a free program delivered to students in BC through the BC Responsible and Problem Gambling Program.

The stated goals of the Gam_*iQ* program are to

- Promote informed choices about gambling by educating students about the risks involved.
- Correct common myths about gambling.
- Provide tips on how to gamble responsibly, if choosing to gamble (for post-secondary students only).
- Describe the signs of problem gambling.
- Inform students of the resources and services available in BC for gambling-related problems.[93,94]

[s] Statistical instruction is designed to increase knowledge of the probabilities involved in gambling.

The VSE Program has been in place in BC since 1999, with the number of new registrants fluctuating between 4,000 and 5,500 per year since 2007/2008. The BCLC recently completed a review of best practices for voluntary self-exclusion programs[97] and also implemented an assessment of its VSE Program.[56] These reviews recommended several changes to the program, some of which have been implemented. For example, in 2010, the province changed the operation of the VSE Program so that it could withhold jackpots won by program registrants. Since its inception, the holdback program has withheld at least $1.21 million, which is being used to fund gambling-related research projects as determined by the BCLC and the Gaming Policy and Enforcement Branch. The provincial government currently has plans to implement a third (and more extensive) problem gambling prevalence survey in 2013/2014. The government also recently announced a $2 million grant to the Department of Psychology at the University of British Columbia to create the BC Centre for Gambling Research (see sidebar *The University of British Columbia's Centre for Gambling Research*). Other promising practices include assessing the risk of new games,[t,98] prohibiting the use of tobacco in gambling venues,[u,99] and government provisioning of most forms of gambling (bingo and horse racing are the exceptions). As shown in Table 5.1, the effectiveness of these policies and programs for preventing problem gambling ranges from moderately high for the video lottery terminal and smoking bans,[v] to moderate for government provisioning of gambling, to moderately low for voluntary self-exclusion programs.[77]

Other problem gambling prevention policies implemented by the province include the policy of restricting several forms of gambling to dedicated gaming facilities (i.e., casinos, community gaming centres), prohibition of youth gambling, a government-imposed maximum loss limit of $10,000 per week on the *Playnow.com* website, problem gambling identification and response training for staff in gaming facilities, and adjustments to venue design to reduce risk. Venue restrictions can include requiring that clocks be prominently displayed throughout the venue. This is significant because problem gambling is associated with "difficulties in limiting time and/or money spent on gambling,"[101] so clocks in venues can help prevent gamblers from "losing track of time." These policies and programs range in estimated effectiveness from moderate to moderately low (see Table 5.1). The province's *PlayNow.com* website provides access to all major forms of gambling (poker, slot machines, bingo, and lotteries); while the site has age-verification protocols in place to restrict who can gamble, the availability of Internet gambling 24 hours a day, seven days a week, means that some of the benefits of restricting gambling to dedicated facilities

The University of British Columbia's Centre for Gambling Research

The University of British Columbia (UBC) is establishing a new Centre for Gambling Research, intended to increase understanding of and help to reduce problem gambling behaviours. The Centre will be housed in the UBC Department of Psychology, and will "study the social and behavioural aspects of gambling, provide evidence-based support for improved gaming policy and programs, and strengthen training for prevention professionals."[100]

Funding of $2 million for the Centre was provided by BCLC and the provincial government, and was announced in February 2013. The Centre is expected to open in late 2013, and will be independent of BCLC and the gaming industry.[100]

[t] BCLC has assessed various games to determine level of risk associated with game design using the GAM-GaRD protocol (an addiction risk assessment tool). As of June 2012, over 40 proposed new games had been assessed using the protocol in BC; the majority of these (29) were assessed as low- or moderate-risk, and 11 were assessed as high-risk.

[u] Research suggests that although smokers are no more likely to gamble than non-smokers, smokers who do gamble spend more than twice the amount spent by non-smokers. Smoking bans in gaming venues may therefore interrupt problem gambling behaviour, and/or serve as a disincentive for smokers to visit gaming venues.

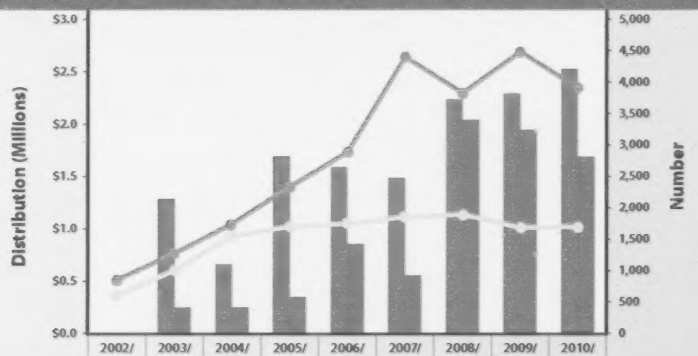
[v] The effectiveness of smoking bans is only shown to be moderately high when the ban prohibits concurrent smoking and drinking.

and limiting their hours of operation may be compromised.

Figure 5.4 provides more data on problem gambling prevention initiatives and capacity in BC from 2002/2003 to 2010/2011. Several trends are apparent in this figure. First, distributions to responsible gaming have increased significantly over time from $250,000 in 2003/2004 to $1.69 million in 2010/2011. This increase should be interpreted with caution, as distributions in 2008/2009 and beyond incorporate funding for marketing and promotion that includes responsible gaming messaging. Distributions to problem gambling awareness have also increased, from $1.29 million in 2003/2004 to $2.53 million in 2010/2011. Second, the number of prevention presentations (community-based presentations and training sessions intended to raise awareness of problem gambling and promote responsible gaming behaviours) has fluctuated over time from a low of 610 in 2002/2003 to a high of 1,900 in 2008/2009. These include presentations to students in various age groups, as well as programming delivered to parents, older adults, Aboriginal peoples, and other groups.[102] These increases have followed the trend of the number of registrants in the VSE Program,

Figure 5.4

Distributions to Prevention Initiatives, and Number of Prevention Presentations and New Program Registrations, BC, 2002/2003 to 2010/2011



	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Distributions to Problem Gambling Awareness Initiatives	-	$1.29	$0.66	$1.69	$1.59	$1.49	$2.24	$2.29	$2.53
Distributions to Responsible Gaming Initiatives	-	$0.25	$0.25	$0.35	$0.86	$0.56	$2.04	$1.95	$1.69
Number of New Registrations in Voluntary Self-Exclusion Program	[illegible]	1,281	1,752	2,340	2,892	4,404	3,833	4,491	3,913
Number of Prevention Presentations	610	1,006	1,560	1,700	1,750	1,855	1,900	1,688	1,703

Year

Note: Numbers for responsible gaming should be interpreted with caution, as distributions 2008/2009 and later reflect incorporation of funding for marketing and promotion that includes responsible gaming messaging. "Prevention presentations" are community-based presentations and training sessions intended to raise awareness of problem gambling and promote responsible gaming. "Problem gambling" initiatives generally refer to those funded by government health ministries and departments, while "responsible gaming" initiatives generally include those initiated by the government gaming industry. However, BC has some overlap between these initiatives, where the provincial government's Gaming Policy and Enforcement Branch oversees both responsible gaming initiatives and problem gambling services under the umbrella of the BC Responsible and Problem Gambling Program. A "-" indicates that data were unavailable for that year.

Source: Canadian Partnership for Responsible Gambling. 2004-2012. *Canadian Gambling Digest 2002-2003* to *2010-2011*; BC Gaming Policy and Enforcement Branch (2011 and previous years). Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

GameSense

GameSense, BCLC's responsible gambling program, provides information and education on both responsible play ("keeping it fun") and the risks associated with gambling. GameSense includes a website, television and movie theatre advertising, interactive on-site responsible gaming terminals, trained GameSense Advisors who provide information and support, and a variety of other tools and resources.[103] For more information, visit the GameSense website at www.GameSense.bclc.com.

showing that there has been an increase in both distributions to problem gambling programs, and in their utilization.

The provincial government has also placed 34 GameSense Info Centres (interactive on-site terminals providing information and resources to help gamblers make responsible and informed gambling decisions) in major gambling venues throughout the province. This includes 17 in bingo facilities (self-service terminals), and 17 in casinos (staffed by GameSense Advisors up to 35 hours per week).[14] Further development and evaluation of the GameSense program, including player awareness of GameSense, is part of *BC's Responsible Gambling Strategy and Three Year Plan (2011/12–2013/14)*.[90]

British Columbia's Problem Gambling Treatment Initiatives

The provincial government has offered free publicly-funded treatment for problem gambling since the mid-1990s. Types of treatment available include the Discovery program and Feedback Informed Treatment (FIT). The Discovery program is an intensive 2.5- or 5-day treatment program that provides counselling and life-skills training for problem gamblers (see sidebar *The Discovery Program*). FIT is a method of treatment that allows patients to provide feedback to the practitioner, who can then modify the treatment as appropriate to target the patient's specific needs; as a result, multiple approaches may be incorporated into a single patient's treatment.[104] FIT and

The Discovery Program

Launched in 2008/2009, the Discovery program helps problem gamblers develop the knowledge and skills needed to address their gambling-related issues. Discovery is an intensive clinical treatment program that runs several times a year in selected locations, with day, evening, and weekend sessions. Participants learn about problem gambling triggers and issues, stress management, financial management, communication skills, and life skills. The Discovery program also provides intensive group therapy, couples therapy, and relapse prevention counselling.[102]

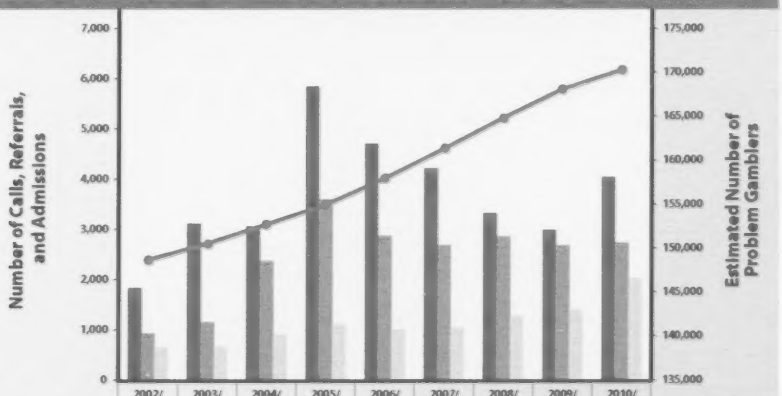
Discovery treatments are based on a harm-reduction approach (e.g., they do not require participants to abstain from gambling while undergoing treatment) and offer intensive day treatment for individuals, couples, and families, as well as group treatment options.

In 2011/2012, 2,071 clients received a total of 8,288 clinical sessions through these programs, and 1,272 clients attended group counselling (326 of these through the Discovery program). Participation in the FIT treatment model was initially capped at 20 sessions, but this session limit has now been removed so clients can attend as many sessions as they require. The effectiveness of FIT treatment is evaluated by the client at every session and, if progress is not reported, the client is referred to another practitioner or type of treatment. No formal outcome evaluations of either FIT or the Discovery program have been completed to date, but a longitudinal treatment outcome study for FIT clients is planned for 2013/2014.[2,96]

Figure 5.5 shows trends in treatment-related indicators in BC over the last decade. As has been shown for other jurisdictions in Canada and elsewhere, only a very small percentage of problem gamblers who could benefit from assistance actually engage in the treatment services provided by the province. These data also show variability in the level of engagement and service provision over time. For example, the number of calls to the Help Line (see sidebar *Problem Gambling Help Line*) peaked at nearly 6,000 in 2005/2006, then decreased substantially over the next four years, then increased again to just over 4,000 in 2010/2011. Referrals from the Help Line into counselling programs also peaked in 2005/2006; however, 2005/2006 also shows the lowest ratio of referrals leading to admission into treatment programs. While the number of referrals remained relatively stable from 2006/2007 to 2010/2011, there was improvement in the ratio of referrals leading to admission into treatment programs (from 35 to 74 per cent) during those four years.

Figure 5.5

Problem Gambling Treatment Need and Utilization, BC, 2002/2003 to 2010/2011



	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Help Line Calls (Own or Other's Problem)	1,823	3,103	3,053	5,843	4,698	4,209	3,312	2,983	4,034
Referrals to Counselling Program from Help Line	935	1,150	2,375	3,590	2,869	2,695	2,864	2,693	2,737
Admissions to Treatment Programs	655	655	900	1,115	1,017	1,054	1,280	1,403	2,034
Estimated Number of Problem Gamblers (4.6% of population age 18+)	148,616	150,487	152,650	154,934	157,899	161,276	164,786	168,066	170,256

Year

Note: "Estimated number of problem gamblers" includes moderate-risk and problem gamblers.
Source: Canadian Partnership for Responsible Gambling. 2004-2012. *Canadian Gambling Digest 2002-2003* to *2010-2011*; BC Gaming Policy and Enforcement Branch (2011 and previous years); BC Vital Statistics Agency (no date). Data compiled by the Centre for Addictions Research of BC, 2013; prepared by Public Health Planning and Surveillance and the Office of the Provincial Health Officer, Ministry of Health, June 2013.

Problem Gambling Help Line

Part of BC's Problem Gambling Strategy is the toll-free Problem Gambling Help Line (1-888-795-6111), available 24 hours a day, seven days a week, to BC residents of all ages. The Help Line provides confidential information and referrals to free counselling and other services for those who need it. Service is available in multiple languages. For more information, visit www.BCResponsibleGambling.ca and click on the "BC Problem Gambling Help Line" icon.

Summary

As discussed in this chapter, a variety of approaches may be taken to reduce the harms associated with gambling. Despite limited evaluation of many programs to date, BC and other jurisdictions are looking to promising practices identified in the literature for guidance, and pilot-testing programs and initiatives to both promote responsible gaming behaviours and prevent and respond to problem gambling. This includes efforts to raise awareness of and educate the public about responsible gaming and problem gambling; research to improve understanding of problem gambling; development of policies that make gaming safer for individuals, families, and communities; and providing tools, resources, and treatment programs to identify and assist those already experiencing gambling problems. Maintenance and enhancement of this array of initiatives requires regular evaluation, as well as sufficient, dedicated, and ongoing funding. Such support will help to ensure that BC's revenue from gaming is acquired in the healthiest manner possible, and do not come at the expense of vulnerable populations. The final chapter discusses the findings presented in this PHO report and provides recommendations to help balance the positive and negative impacts of gambling in BC.

Chapter 6

Discussion and Recommendations

Provincial governments in Canada obtained the exclusive right to manage and conduct legalized gambling in 1985, and all jurisdictions (including BC) have used this authority to greatly expand the scope and scale of gambling over time. This has led to two major effects: a substantial increase in government revenue from gaming, and an increase in the prevalence of gambling-related problems, the most significant of which is problem gambling.[7] Several policy-related factors influence outcomes related to increased access to gambling, including the magnitude of the increase, the types of games being introduced or expanded, and the effectiveness of policies and programs for preventing and treating gambling-related harms.

The history of gambling policy in BC shows that legalized gambling has evolved under government leadership from a small-scale enterprise providing revenue to religious, charity, and other non-profit organizations, to a popular form of entertainment with a majority of proceeds directed into general government revenue. The formal implementation of the community chest model of gambling management in 2002, along with the expansion of gambling availability in BC, has led to a significant increase in government revenue over time. Revenue from gaming increased substantially in BC between 2002/2003 and 2010/2011, even though overall participation in gambling declined from 85 per cent to 73 per cent, from 2002 to 2007. This means that BC is earning more revenue per gambler—an outcome verified by a substantial increase in gaming revenue per capita (age 18 and up) since 2002/2003.

Recent trends in gaming availability show that the BC government has expanded access to several forms of gaming associated with higher rates of problem gambling (e.g., slot machines and Internet gambling); meanwhile, less risky forms of gaming (e.g., lottery tickets and bingo) appear to be on the decline. As a result of these shifts in gambling patterns, revenue from casino- and non-casino-based slot machines now accounts for a majority (approximately 55 per cent) of government revenue from gaming in BC. Although BC has assessed risk potential for some new game offerings, no report describing the overall distribution of low-risk, moderate-risk, and high-risk games has been published by the BC Lottery Corporation. This information would be useful for assessing the extent to which government is providing gambling in a way that fosters low-risk play.

To its credit, BC has implemented a number of best or promising practice interventions including the Voluntary Self-Exclusion Program, and prohibiting the use of tobacco in gaming venues. Following the view that the decision to participate in gambling is a personal choice and individual gamblers are responsible for their gambling-related behaviours, BC emphasizes educational programs designed to promote responsible gaming, despite the fact that a recent review of published literature suggests that the

effectiveness of such programs is moderate to moderately low.[77] This Provincial Health Officer's report also verifies that the recent policy decisions that have resulted in expanded gaming opportunities appear to be increasing rather than decreasing gambling-related risk in BC. Evidence suggests better outcomes are experienced by those jurisdictions that balance harm minimization concerns with revenue generation potential, and that long-term, stable commitment to comprehensive programs is needed to achieve effective prevention.[77] Despite this, BC continues to allocate the smallest percentage of gaming revenue to its responsible gaming and problem gambling programs compared to the Canadian provincial average. All of this suggests a shift away from a traditionally lower-risk approach to gambling compared to some other provinces in Canada.

The Gaming Policy and Enforcement Branch and the Responsible and Problem Gambling Program both deserve credit for their development and delivery of treatment programs for problem gamblers. Nonetheless, these programs currently meet the needs of only a small fraction of people with moderate or severe gambling problems. Additionally, neither Feedback Informed Treatment (FIT) nor the Discovery treatment program have had independent, third-party evaluations to determine outcomes and effectiveness. Finally, brief interventions have been shown to be highly cost-effective for treating addictive behaviours. This evidence-based modality could potentially be used to prevent the comparatively large number of moderate-risk gamblers in BC from becoming problem gamblers, and could therefore help round out the complement of treatment programs offered in BC. Overall, mandating a percentage of revenue to evidence-based programs and initiatives would ensure a more stable response to problem gambling in the province.

Recommendations

By applying a public health perspective to the examination of gambling in BC, this report has shown that gambling is a public health issue, with substantial health, social, and economic impacts on citizens and communities in BC. This issue requires a public health response in which public policies and programming recognize the potential benefits of gambling while minimizing potential harms to British Columbians. This response should involve public health engagement through intersectoral collaboration and partnerships, with overarching goals of improved health and reduced health inequity. It is in this context of a public health framework that the following 17 recommendations are offered.

Preventive Interventions

Preventive interventions include screening, early detection, counselling, and other activities to prevent harms from arising or worsening.

The recommendation to prevent unnecessary harms and costs to British Columbians due to problem gambling is as follows:

1. The 2003 PHO report *An Ounce of Prevention* recommended the development and implementation of an evidence-based curriculum running from school entry to graduation as part of a comprehensive school health promotion process. It is recommended that the Ministries of Education, Finance, and Health work together to develop a consistent, province-wide approach to enhancing risk avoidance related to gambling among children and youth, with a special emphasis on youth in grades 10 to 12.

Health Promotion

Health promotion involves building capacity, knowledge, and resilience in individuals, groups, and communities through addressing the social determinants of health and creating environments in which the healthy choice is the easy choice.

Recommendations to support health promotion related to gambling are as follows:

2. Place signage on all electronic gaming machines in service in British Columbia conveying the risk-rating of that machine, so consumers can make informed point-of-play choices about the games they choose to play.

3. Improve the capacity of BC Lottery Corporation staff to actively identify and respond to problem gamblers in its venues, including community gaming centres. This could include using information from loyalty card programs to identify problem gamblers, giving training on proper and safe ways for facility staff to intervene, and providing incentives and performance monitoring to encourage staff members to proactively identify problem gamblers.

4. Implement a pilot project to test the efficacy of using brief interventions and motivational enhancement therapy within the Feedback Informed Treatment and Discovery treatment programs to treat low- and moderate-risk gamblers, and cognitive behavioural therapy to treat moderate- and high-risk gamblers. This includes conducting and publishing formal outcome evaluations of these programs.

5. Integrate and formally link problem gambling screening and treatment in the larger mental health and substance use treatment systems managed by the regional health authorities in BC.

6. Review all policies related to processing applications for changing gaming availability to ensure appropriate community engagement and self-determination.

Health Protection

Health protection requires development and implementation of strategies that protect people through legislation, regulation, inspection, and enforcement. Health protection recognizes that many of the determinants of health lie outside an individual's sphere of control, and that legislation and policies must recognize the potential for harm and seek to minimize risks to individuals and communities.

Recommendations to protect the health of British Columbians, including both non-gamblers and gamblers, are as follows:

7. Meaningfully involve public health stakeholders in decisions regarding the availability of gaming in BC. This could involve creating an advisory committee on gaming that must be consulted regarding all future decisions on the expansion of gaming or changes in gaming policy.

8. Require assessment of risk potential, including the percentage of revenue that will be generated from problem gamblers, before approving any expansion of gaming or introducing new gambling products.

9. Make all future decisions on the expansion of gaming or introduction of new gambling products contingent upon reducing the overall percentage of revenue derived from problem gamblers.

10. Reduce the availability of high-risk electronic gaming machines (EGMs) and high-risk gambling offerings on the *PlayNow.com* website. This could involve replacing high-risk EGMs with lower-risk variants or reducing the overall number of EGMs in service.

11. Restrict or reduce access to alcohol in gaming facilities. This could involve reducing the physical availability of alcohol (e.g., reducing hours of service) and reducing the economic availability (e.g., raising prices).

12. Restrict or reduce access to money in gaming facilities. This could involve mandating player pre-commitment, and prohibiting automated teller machines (ATMs).

13. Allocate at least 1.5 per cent of gaming revenue to responsible and problem gambling initiatives, with set amounts earmarked for prevention, health promotion, and treatment initiatives that meet evidence criteria. This includes monitoring programs and implementing policies that increase the effectiveness of responsible and problem gambling programs.

Assessment and Surveillance

Assessment and surveillance involves monitoring population health status in order to detect, assess, and respond to health-related issues, as well as contributing to determining the effectiveness of public health programs and services. The design and implementation of systems to monitor and assess gambling must take into account the challenges and issues discussed in this report, including the current shortage of data and research needed for a comprehensive public health approach to problem gambling in BC.

Recommendations to support effective assessment and surveillance of gaming in BC are as follows:

14. Develop and implement a comprehensive monitoring system to routinely and systematically track the economic and social impacts of gambling. At a minimum, this would need to include impacts on the health and quality of life of the population as a whole and on that of vulnerable populations, with attention to health equity concerns.

15. Collect and monitor data to assist local governments and communities to make evidence-based decisions about hosting and/or expanding gaming facilities. This includes (but is not limited to) establishing reliable estimates of the potential revenue derived from local citizens' gambling compared to tourists' gambling, and determination of an optimal blend of gaming revenue derived from local residents and tourists.

16. Engage public health and gambling researchers in developing an evidence-based strategy for BC, funded by the holdbacks from the Voluntary Self-Exclusion Program. The newly created Centre for Gambling Research at the University of British Columbia could provide expert counsel to the government on gambling-related matters and help promote the emergence of a comprehensive, public health-informed approach to gambling policy in BC.

17. Establish and maintain a stable source of funding to support ongoing gambling-related research and evaluation in BC.

Conclusion

While the BC government deserves recognition for implementing various problem gambling prevention and treatment programs, its decision to expand access to more problematic forms of gambling in recent years is counterproductive from a public health perspective. The available evidence suggests that this expansion of gaming availability has resulted in increased prevalence of problem gambling in BC.

Leading Canadian scholars on gambling have suggested that "…the very legitimacy of government-sponsored gambling and its continued expansion hinges on the assumption that a large proportion of

revenue from gaming does not come from an addicted and highly vulnerable segment of the population."[62] As shown in this report, on a per capita basis, problem gamblers likely account for a greater and increasing proportion of revenue than do other types of gamblers, and revenue from gaming in BC has increased over time. Therefore, current policies of gaming expansion are taking more from a vulnerable population (problem gamblers) and directing those funds into general revenue to provide products and services for those who are less vulnerable (the general population). This practice conflicts with the stated objective of the province's gambling strategy to provide gambling in a way that encourages safe play.

While gambling will always involve a risk of harm, such harm could be substantially reduced if the government of BC adopted some or all of the recommendations made in this report. Prevention will require building resilience and preventing new cases of problem and pathological gambling from arising. Health promotion involves transparency in informing people about the relative risk of various forms of gambling and providing appropriate and adequate services to support people who get into trouble with gambling. Health protection initiatives should focus on restricting the availability of harmful forms of gambling and restricting or limiting the use of alcohol and access to money in gaming facilities.

The province should allocate a higher and more consistent percentage of gaming revenue to its related promotion, prevention, and treatment interventions, and should focus on embedding evidence-based and promising practices in these services. Reducing the harms from gambling will require the implementation of policies and programs that will significantly decrease the proportion of revenue that comes from problem gamblers. This means that some minor inconveniences to non-problem gamblers may have to be tolerated, and that government revenue from gaming may decline. Overall, adopting these recommendations will help to balance the known negative impacts with the potential benefits of gambling.

Appendix A

Timeline of Gambling in Canada with a Focus on BC

This timeline was compiled by the principal author from multiple sources.[20,21,106,107,108]

1892: The federal *Criminal Code* incorporates pre-existing gambling restrictions enacted by Parliament in 1886 and 1892,[108] and declares a complete ban on all gambling activities in Canada.

1900: The *Criminal Code* is amended to permit charitable gaming such as bingo and raffles.

1906: The *Criminal Code* is amended to legalize "lottery schemes."

1910: The *Criminal Code* is amended to allow on-track betting on horse races.

1925: Temporary gambling events at agricultural fairs and exhibitions are allowed.

1954: A joint committee of the House of Commons and Senate holds public hearings on lotteries, with the final report arguing against allowing large-scale lottery schemes. Several private members' bills during the 1960s try to legalize lotteries but fail.

1969: The *Criminal Code* is amended to remove criminal sanctions against lottery schemes, thus allowing for both federal and provincial government-run ticket lotteries and sweepstakes.[108]

1970: An Order-in-Council is passed by the BC Legislature that authorizes the government to conduct lottery and non-permanent casino games for charitable purposes. A small amount (2 per cent) of proceeds from charity gaming goes to the government in the form of licensing fees.

1974: The first national lottery is held to raise money for the Olympic Games in Montreal, Quebec. BC passes the provincial *Lottery Act* and joins with Alberta, Manitoba, and Saskatchewan to form the Western Canada Lottery Foundation (later known as the Western Canada Lottery Corporation). Government revenue from early lottery games is dedicated to be used for "cultural or recreational purposes" only.

1976: Increasing revenue from gaming leads BC to change the provincial *Lottery Act* to allow revenue to be used for "other purposes."

1980: Canada's first year-round charity casino opens in Calgary, Alberta.

1982: Canada's first "pick your own numbers" nationwide lottery, Lotto 6/49, debuts. The Great Casino Supply Company incorporates in BC to serve the growing demand for charity casino management and services.

1984: A "bingo industry" begins to emerge in BC, facilitating the expansion of community and charity bingo gaming. By 1987 there are 63 bingo halls across the province.

1985: Provincial governments are given exclusive control over all forms of gambling, including games conducted via computer, video lottery terminals (VLTs), and slot machines.[107,108] Betting on horse races via telephone is also permitted.[108] BC leaves the Western Canada Lottery Foundation, passes the BC *Lottery Corporation Act*, and forms the BC Lottery Corporation (BCLC) to conduct and manage government gambling operations in the province.

1986: BC introduces pull-tab tickets in adult settings. Lotto BC, the first BC-only online game, launches. Licensing fees for charity casinos in BC increase to 5 per cent.

1987: The BC Gaming Commission is created to provide guidance on gambling policy in BC. The BC Attorney General asks the BC Gaming Commission and the BC Ministry of Tourism, Recreation and Culture to evaluate the feasibility of creating permanent, destination-style casino facilities in the province.

1988: The BC Gaming Commission issues a report calling for the creation of a comprehensive Gaming Act to rationalize the management of gambling in BC. The report also suggests

that a major destination-style casino in an urban setting is viable. Starship Bingo, a touch-screen electronic bingo system, debuts in Vancouver, BC. The BCLC becomes the first lottery jurisdiction in Canada to offer an online sports lottery, Punto.

1989: Canada's first year-round commercial (non-charity) casino opens in Winnipeg, Manitoba.

1990: New Brunswick is the first province to introduce VLTs, allowing the machines to be placed in licensed and non-licensed establishments such as corner stores, bowling alleys, and taxi stands.

1991–1993: All provinces except Ontario and BC introduce VLTs. In some provinces, the machines are restricted to licensed establishments.

1993: The Canadian Public Health Association (CPHA) passes a resolution calling for a national assessment of the harms and costs of gambling. The provincial governments of Alberta and New Brunswick develop the first government-funded treatment programs for treating problem gambling. The BC Gaming Review Committee, which was created by the Attorney General and the Minister of Government Services to conduct a gaming policy review in BC, releases an interim report that (1) calls for some form of comprehensive gambling legislation; (2) expresses concern about the ability of charities to maintain their revenue from gaming activities; (3) voices concern from some religious organizations and individuals about the expansion of gambling and the rise in problem gambling; (4) acknowledges the desire of the gaming industry for further expansion of gaming options, increased bet limits, and expanded hours of operation of gaming facilities; and (5) supports the introduction of VLTs and slot machines in the province.

1994: A proposal is delivered by a major private casino operator to create the first permanent destination casino in BC, the Seaport Centre in Vancouver. The casino is not pursued.

1995: Manitoba, Alberta, and Saskatchewan are the first provinces to limit the number of VLTs. The BC Gaming Commission releases its final report, which, among other things, calls for the introduction of 4,600-5,000 VLTs in the province. The VLT option was never exercised and, as of August 2012, BC still did not have any VLT machines. The report also includes, for the first time, official reference to First Nations casinos and calls for an outright ban of commercial "Vegas-like casinos" in BC. The first Keno draw (a 5-minute-style game) is held in BC. By 2010/2011, there were 3,888 electronic Keno venues in BC.

1997: BCLC is given responsibility to conduct and manage all slot machines in the province. Slot machines are introduced into charity casinos operating in BC. Some municipal governments, including Vancouver, vote to ban slot machines in gaming facilities within their jurisdictions.

1998: BCLC assumes responsibility for table games in casinos, making the corporation responsible for all casino gambling in the province.

1999: The CPHA passes a resolution asking governments to monitor the effects of EGMs such as VLTs. British Columbia's first destination casino—the Royal City Star, a riverboat casino—opens in New Westminster. The BCLC breaks the $1 billion sales mark. The Voluntary Self-Exclusion (VSE) Program begins operating in BC. The program has the authority to fine self-excluders found in gaming facilities up to $5,000, though as of 2012, the penalty had never been applied.

2002: The first and only national gambling prevalence survey to date is implemented as part of the Canadian Community Health Survey. Past year national prevalence of gambling participation is estimated at 76 per cent, and the rate of problem gambling is an estimated 2.6 per cent. The *Gaming Control Act* comes into force in BC, the first three-year Responsible Gambling Strategy is launched, and the Gaming Policy and Enforcement Branch is created.

2004: BCLC introduces *PlayNow.com*, a gambling website offering online play and purchase of select lottery products.

2005: BCLC introduces at least 250 slot machines in community bingo halls, renaming the facilities

"community gaming centres" to better reflect their services. By 2011 there were a total of 1,848 slot machines in 16 community gaming centres across BC.

2006: The second three-year Responsible Gambling Strategy is launched in BC.

2007: BCLC and Gateway Casinos and Entertainment Inc. announce the official opening of British Columbia's most recent major destination casino—The Starlight—in New Westminster. This brings the total number of permanent casinos in the province to 17. Onsite problem gambling support centres are placed in seven casinos in BC, with all 17 casinos in the province having them by March 2008.

2009: BCLC launches GameSense, a revitalization of the corporation's responsible gaming resource. The third three-year Responsible Gambling Strategy is launched in BC.

2010: BCLC becomes the first government gambling authority in North America to offer legal, regulated online casino games on its *PlayNow.com* website. The *Gaming Control Act* is amended to allow the BCLC to withhold jackpot winnings from patrons who have enrolled in the VSE Program. All withheld VSE winnings are earmarked to fund gambling-related research in BC.

2011: Revenue from gaming in BC exceeds $2 billion for the first time. Independent evaluations and reviews of BC's VSE Program are published by the BC Centre for Social Responsibility and the Responsible Gambling Council Centre for the Advancement of Best Practices.

2012: The BCLC and the government of BC give a $2 million grant to the University of British Columbia to create the BC Centre for Gambling Research. The Centre is expected to open in late 2013, and will be housed in the Department of Psychology. The Centre will focus on studying the social and behavioural aspects of gambling, providing evidence-based support for improved gambling policy and programs, and strengthening training for prevention professionals.

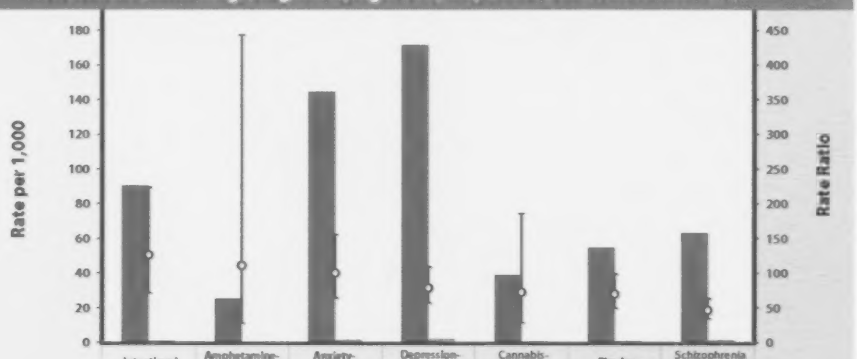
Appendix B

Detailed Data for Figure 4.16

The following four figures provide additional details of Figure 4.16, presented in Chapter 4 of this report.

Figure 4.16a

Age-Standardized Co-Morbidity Rates and Rate Ratios (126.0 to 46.4) for Persons with and without a Problem Gambling Diagnosis, Age 15+, BC, 2006/2007 - 2010/2011

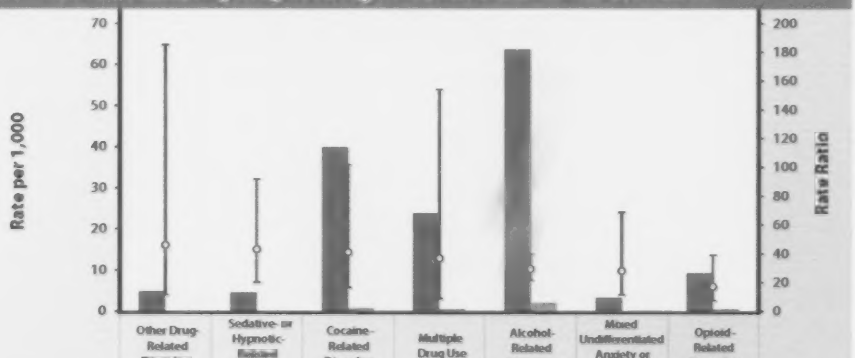


	Intentional Self-Harm	Amphetamine-Like-Related Disorders	Anxiety-Related Disorders	Depression-Related Disorders	Cannabis-Related Disorders	Bipolar Disorders	Schizophrenia and Psychotic Disorders
Rate with Problem Gambling	90.5	25.1	144.4	171.4	38.8	54.7	63.2
Rate without Problem Gambling	0.7	0.2	1.4	2.2	0.5	0.8	1.4
Rate Ratio	126.0	110.6	99.9	78.5	72.3	69.8	46.4

Note: All rate ratios are statistically significant. Rate ratio calculated as rate of co-morbidity of persons with a gambling problem, over the rate of co-morbidity of persons without a gambling problem. "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis. For 2001/2002 - 2010/2011, N=257, which consists of 234 prevalent cases and 18 deceased and five former BC residents.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

Figure 4.16b

Age-Standardized Co-Morbidity Rates and Rate Ratios (46.1 to 17.1) for Persons with and without a Problem Gambling Diagnosis, Age 15+, BC, 2006/2007 - 2010/2011

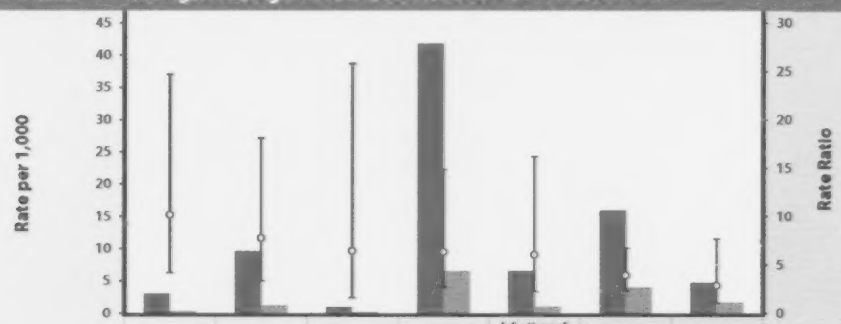


	Other Drug-Related Disorders	Sedative- or Hypnotic-Related Disorders	Cocaine-Related Disorders	Multiple Drug Use	Alcohol-Related Disorders	Mixed Undifferentiated Anxiety or Depression	Opioid-Related Disorders
Rate with Problem Gambling	4.9	4.6	39.9	23.9	63.8	3.4	9.3
Rate without Problem Gambling	0.1	0.1	1.0	0.6	2.2	0.1	0.5
Rate Ratio	46.1	43.1	41.1	36.9	29.5	28.0	17.1

Note: All rate ratios are statistically significant. Rate ratio calculated as rate of co-morbidity of persons with a gambling problem, over the rate of co-morbidity of persons without a gambling problem. "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis. For 2001/2002 - 2010/2011, N=257, which consists of 234 prevalent cases and 18 deceased and five former BC residents.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

Figure 4.16c

Age-Standardized Co-Morbidity Rates and Rate Ratios (10.2 to 2.9) for Persons with and without a Problem Gambling Diagnosis, Age 15+, BC, 2006/2007 - 2010/2011



	Accidental Poisoning	Dementia	HIV	Diabetes	Infections of Skin and Subcutaneous Tissue	Ischemic Heart Disease	Acute Myocardial Infarction
Rate with Problem Gambling	3.0	9.7	1.0	41.8	6.5	15.9	4.7
Rate without Problem Gambling	0.3	1.2	0.2	6.6	1.1	4.0	1.7
Rate Ratio	10.2	7.8	6.5	6.4	6.1	3.9	2.9

Note: HIV = Human Immunodeficiency Virus. All rate ratios are statistically significant. Rate ratio calculated as rate of co-morbidity of persons with a gambling problem, over the rate of co-morbidity of persons without a gambling problem. "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis. For 2001/2002 - 2010/2011, N=257, which consists of 234 prevalent cases and 18 deceased and five former BC residents.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

Figure 4.16d

Age-Standardized Co-Morbidity Rates and Rate Ratios (2.6 to 2.0) for Persons with and without a Problem Gambling Diagnosis, Age 15+, BC, 2006/2007 - 2010/2011

	Hypertension	Colon Cancer	Hepatitis B and C	Assaults	Falls	Heart Failure
Rate with Problem Gambling	18.7	1.6	0.6	0.8	6.2	5.1
Rate without Problem Gambling	7.3	0.7	0.3	0.4	3.1	2.6
Rate Ratio	2.6	2.3	2.2	2.1	2.0	2.0

Note: Rate ratio calculated as rate of co-morbidity of persons with a gambling problem, over the rate of co-morbidity of persons without a gambling problem. "Problem Gambling" case definition is based on at least one hospital separation with a diagnostic code of F63.0 (pathological gambling, compulsive gambling) or Z72.6 (problems related to lifestyle—gambling and betting, not otherwise specified) on the discharge abstract, at any level of diagnosis. For 2001/2002 - 2010/2011, N=257, which consists of 234 prevalent cases and 18 deceased and five former BC residents.
Source: Population Health Surveillance and Epidemiology, Ministry of Health, August 23, 2012.

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